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PAGE

Notes and News ... 463

Topics of the Week:

Science and Our Neglected Industrial Opportunities ... 465

The Half-year's Dividends: Transvaal Gold Producing Companies ... 466

Personal ... 466

The Natal Coalfields: Phases in Development.—II. ... 467

Answers to Correspondents ... 468

The Week in the Sharemarket ... 469

Metallurgical Problems of the Rand.—IV. ... 470

Rhodesian Section:

May Mineral Output in Detail ... 471

The Week in the Mining Material and Engineering Trades ... 475

Engineering Notes and News:

What Peace Means to the Steel Trade ... 481

Company Meetings: West Rand Consolidated, Roodepoort United Main Reef, Cinderella Consolidated, New Steyn Estate, Sacke Estates, Aurora West United, Rand Collieries ... 483

Notes and News

During the week the General Purposes Committee recommended to the Pretoria Town Council that, subject to the approval of the Administrator, a draft lease between the Council and Mr. C. F. Delfos, granting the latter the right to mine for and dispose of iron, iron ore, iron quartz, and iron-bearing minerals and metals, situate on a portion of the town lands of Pretoria, for a period of twenty years, and in the event of its being legally competent to do so, for further periods of thirty and forty years respectively, be approved and adopted. The recommendation was agreed to by a large majority. It is noteworthy in this connection that an exhaustive report on the iron ores of the Pretoria town lands has lately been prepared by two well-known scientists, and that there is a prospect of the erection of an electric furnace for treating the ores at an early date.

The Secretary of the New Modderfontein G.M. Company has issued the following for the information of shareholders:—Regarding the new plant in course of erection, there appears to be no doubt that the reduction plant will be completed at the end of the year. This, however, cannot be brought into commission until the winder at the circular shaft is erected. After various delays work on the winder is now proceeding under Government permission, but on account of the uncertainty of continuity of the work, coupled with possible delays in shipment and marine loss, the directors cannot state with any certainty when new plant will be at work. Shareholders will be advised when the winder arrives in South Africa.

In its report, the Select Committee on Public Accounts states that it has considered the **State Mines Finances**. report of the Controller and Auditor-General on the supplementary agreement entered into between the Government and the Gold Mining Areas (Modderfontein) Consolidated, Limited, by which the profits up to an amount of £250,000 are to be reserved from distribution and applied to capital purposes, the Government share to be treated as a loan repayable at the rate of £10,000 per annum free of interest. The Committee notes that in the opinion of the legal advisers the action of the Government is not in excess of their legal powers, but considers that the alteration of such contracts in favour of the lessees is open to very serious objection, and concurs in the opinion of the Controller and Auditor-General "that the right to divert and re-invest moneys due to revenue should be under Parliamentary control either directly or by an enabling enactment."

The following circular was issued to the shareholders in the Knight Central, Ltd., under date June 28th: "The development of **Knight Central, Ltd.** the area south of the Simmer Dyke has resulted in a total footage driven, risen and sunk of 23,793 feet, of which 13,602 feet were on reef, and have been sampled, giving an average assay value of 3.6 dwts. over a stopping width of 58 inches. This development work has resulted in exposing 760,700 tons of ore, of which only 56,300 tons are payable, or 7.40 per cent., with a value of 5.85 dwts. over 61 inches. The above development work entailed the following expenditure, viz.: Engine chambers and equipment for two subsidiary shafts, £36,662. Sinking the shafts and making stations and ore bins, £57,830. Actual development work, £90,200, or a total expenditure of £184,692. During the past five months ended 31st May, 1917, the company has made a loss on working of £1,007, whilst capital expenditure (mostly shaft sinking) has absorbed a further amount of £14,873, thereby

seriously reducing the balance of cash available at 31st December last. Having regard to the disappointing results obtained, the extreme improbability of any improvement in the future, and in view of the limited funds at the company's disposal, your directors have decided, on the advice of the Consulting Engineer, to suspend all shaft sinking, and to limit development to the few points where payable values have been exposed. The payable ore will be stoped and milled as long as it is possible to do so profitably, and operations will then be suspended."

The report of the British South Africa Company for the year ended March 31, 1917, states that amalgamation of Northern and Southern Rhodesia was postponed owing to the large proportion of the elected members of the Legislative Council having voted in the minority. The principal land owning companies expressed themselves in sympathy with the proposals for land settlement after the war. The report says the ordinary administrative work continued steadily, notwithstanding the diminished staff and other difficulties. Imports of merchandise into Southern Rhodesia increased by £553,766, and exports increased by £653,716. Contracts had been concluded between the Company and the Royal Commission for delivery in July, August, and September next of 110,000 bags of maize at about 12s. 9d. per bag f.o.b. Beira. The mineral output was satisfactory, showing an increase of £430,630. The deficit on the administrative account for Southern Rhodesia was £12,062, compared with £95,078. In Northern Rhodesia the deficit on the administrative account was £39,167, compared with £58,026. Revenue exceeds expenditure by £123,366, compared with £97,676. The company's liquid resources in cash and first-class securities at the end of March, 1917, were approximately £1,450,000, compared with £1,265,000 in March, 1916.

Mr. G. Upton, presiding at the general meeting of the R.N.L.B., last week, predicted a serious shortage of labour. He said: **Rhodesian Labour Shortage Predicted.** "The authorities concerned are quite unable to state when conditions will

allow of our again drawing labour from Northern Rhodesia, Nyasaland, and Portuguese Territory, and without being unduly pessimistic, I think it only right to warn you quite frankly that unless the unexpected happens indications point to a serious shortage of labour in the near future. We simply cannot help these things, and military requirements being of paramount importance, we must accept the position philosophically and with good grace, and do the best we can with the present available labour supply. The Bureau has commenced recruiting operations in the Bechuanaland Protectorate, but in view of the formidable competition of the Transvaal industries, I cannot hold out prospects of any considerable supply from that territory. Still, we are doing all we possibly can, and we are keeping our organisation efficient and intact, so that when we are again allowed to resume operations we can immediately restart the flow of labour to Southern Rhodesia."

The report of the Executive Committee for the month of May, 1917, shows that the number of natives employed on Southern Rhodesian mines in April shows a decrease of 2,167 as compared with the corresponding month in 1916. The question of maintaining the supply of coal to mines in Southern Rhodesia is engaging the serious attention of the executive. Owing chiefly to a shortage of locomotive power at the present time, due to the war, it is difficult for the railways to provide sufficient haulage for transportation, and the position calls for very careful handling by the authorities. As it was brought recently to the notice of the Chamber that many mine employees still appeared uncertain whether it was their duty to go on active service or remain at their posts, the remarks made by H.H. the Administrator at the Farmers' Dinner in Bulawayo, on the 29th May last, on the

necessity of maintaining the main industries of the country, were circularised to every member. The present practice of the Rhodesia Railways to charge rates on copper ores according to value was under consideration, and it was the opinion of the Executive that a uniform rate should be imposed irrespective of value. It would appear that this is the custom adopted by the South African Railways in regard to these ores.

Of the interests held by the Rhodesia Gold Mining and Investment Company, the Lonely Reef Gold Mining Company is the principal, the company holding at December 31 last 34,296 shares. Its other investments include 43,000 Cam and Motor shares; 13,471 Hay Gold Mining shares; 4,500 United Rhodesia Goldfields shares; and 179,896 Sabi Gold shares, the whole standing in the balance sheet at £234,073. With regard to the Cam and Motor, the financial year of which company ends on June 30, it is pointed out that the disappointing crushing results were due to the fact that large bodies of ore in the leading stopes of the Motor Mine were found on opening up to be considerably below their estimated value. The improvement in the extraction results has been maintained at about 83 per cent., but the increasing occurrence of free gold in the ore will necessitate further additions to the plant to ensure finer grinding and longer cyanide treatment than is possible with the present plant. The Bernheim Mine has been let on tribute for a period of three years, and the company during the year received £684 as royalty and rent from this source. Two blocks of claims, 19 in number, in the Inyati district, known as the Huntsman, and situated about 18 miles from the Lonely Mine, have been taken under option. A third block of seven claim adjoining has been pegged in the company's name. The property adjoining the Huntsman has yielded £23,576 from 2,650 tons, or £8 17s. 9d. per ton crushed, which is a recovery of over 2 ozs. per ton. The accounts for 1916 show a net profit of £2,442, which, with the balance of £36,059 brought forward, gives a total of £38,501 to be carried forward to the credit of the profit and loss account.

Formed in 1903 to acquire from the Enterprise Gold Mining Company some 90 claims situated in the Gadzema district of Mashonaland, the **The Giant to Close Down.** Giant Mines of Rhodesia, after a career during which it has distributed among shareholders dividends totalling 141½ per cent., is closing down. Such is the purport of a cablegram to London to the effect that, "owing to the condition of the mine, there is no hope of running the property at a profit, and that instructions have accordingly been given to close down." For some years past the annual yield from the mine has been a steadily diminishing quantity. The company attained its zenith in the matter of production in 1911, for which year 54,246 ozs. were recovered. For 1912, the output was 48,391 ozs.; 1913, 32,881 ozs.; 1914, 15,826 ozs.; 1915, 11,819 ozs.; and 1916, 10,165 ozs. For January this year there was a profit of £334, which in February fell to £104, while for March there was an estimated loss of £1,393, and for April of £1,242. The last dividend paid by the company was 1s. per share in 1913. The news of the suspension of mining work had the effect of marking the shares down 25 per cent. to 3s. 9d. When Rhodesian shares were all the fashion in 1909, Giants were as high as £6 10s. The lode was lost below the 6th level in 1911, and since then there have been no important developments. During the latter part of 1914, the company, in conjunction with the London and Rhodesian Mining and Land Company, purchased from the Cam and Motor Company a 50 per cent. interest in 70 claims known as the Cam, Good Shepherd, Petrol, Isis, Lorna Doone, and Jan Ridd, immediately adjoining the Motor mine in the Hartley district. In some quarters the decision to bury the Giant is regarded as being a welcome indication that no more money is to be wasted on his artificial respiration. It is contended that the half interest in the claims acquired in 1914 represents substantially more than the present market price of the shares.

TOPICS OF THE WEEK.

SCIENCE AND NEGLECTED INDUSTRIAL OPPORTUNITIES.

THE awakening of South Africa to its neglected industrial opportunities continues to be the most notable effect of the war observable locally. The major portion of the Presidential address delivered at Stellenbosch, this week, by Professor Orr, before the S.A. Association for the Advancement of Science, was devoted to this subject. Professor Orr shows himself a keen student of industrial progress throughout the country, and his address brings together a notable array of data dealing with the latest developments of the South African industrial re-birth or revival. Naturally he has nothing but praise for the work being done by the newly-formed Scientific and Technical Committee. He points out that the first work of this Committee has been to arrange for a survey of the raw materials of the country, so as to ascertain what is available for active industrial exploitation. The Government is paving the way by investigation and research to show the world what the prospects of industry are, and Professor Orr quotes the Minister of Mines and Industries as saying that "the Government can only see that general conditions as regards tariff and legislation are reasonable and representative." Prof. Orr very reasonably claims that a country which imports annually thirty-eight million pounds worth of merchandise must have great manufacturing possibilities. He admits that manufacturing industries have languished in South Africa, and industrial failures have been many, due to a variety of causes. As one writer plaintively remarks, there has been "the usual dissipation of energies; the usual record of a few successes and many failures; and the usual discouragement which seems the natural inheritance of the few people who try to bring South Africa to a realisation of her unique opportunities." Prof. Orr goes on to show that the complaint is often made that South Africa has neglected her opportunities; that she is only now beginning to investigate her resources as regards the adequacy and suitability of raw materials; that, as compared with the other members of the Commonwealth of Nations, she is only now emerging from the stage of academic discussion, and is not yet able to put forward co-ordinated schemes for industrial expansion and development which can be expected to attract capital; and capital is wanted as in other countries. "The history of manufacturing countries," he says, "proves that the industrial system has been built up mainly by private enterprise, and we must look mainly to the individual and the corporation to supply this capital." Professor Orr avers that "no industry can be welcomed as a permanent industry which does not utilise the raw products of the country." In this connection the absence of a "primary" iron and steel industry is most keenly felt. All manufacturers using metal are dependent upon the imported article, and although machinery is now being manufactured in South Africa, especially on the Rand, to an extent hitherto considered impossible, this has largely been due to the protection offered by the war, and may possibly be transient. Prof. Orr declares that the importance of the establishment of an iron and steel industry in South Africa transcends that of every other industry: South Africa can never hope to become a machinery manufacturing country without it. We have the raw materials in coal and ore, but markets will have to be created to keep such an industry going continuously, as it must of necessity do. "The Government," says Prof. Orr, "can help by assisting in the initial stages, and it is to be feared that without some direct special assistance, the prospects are remote." But it can also help indirectly through the railways. A guarantee of Government contracts, at any rate in the initial stages, should surely induce a flow of capital for such an important national industry. A glance at the imports for 1916 shows that, during that year, iron and steel to the value of nearly one and a quarter millions sterling, and machinery to the value of two and one-eighth millions sterling, were imported into

the Union. How colossal an iron and steel industry may become is shown by the fact that the output of the United States Steel Corporation reached in 1916 the huge total of nearly fifteen and a half million tons, and we may point to the figures printed in an article on "The Steel Trade after the War" in another part of this issue.

A successful experimental plant, constituting the first electric furnace in South Africa, was erected by the Chamber of Mines during the past year for making steel castings (shoes and dies) from scrap metal, and the manufacture of bar iron, etc., from scrap metal has been carried on for some years in the Transvaal. "Such industries," says Prof. Orr, "have been referred to as 'bastard' industries; primary industries utilising the raw materials are essential. A start was made last month in electro-chemical industries, when a factory for the manufacture of carbide was inaugurated on the Rand; but electro-chemical industries in other parts of the world rely mainly upon cheap electricity derived from water power, and it is of the utmost importance in the industrial development of this country that the Government should spare no expense in having the water-power resources of South Africa immediately investigated." Prof. Orr here seems to overlook the fact that coal-generated electricity is likely to be as cheap here as that derived from water-power. Prof. Orr adds that the great mistake in South Africa has been to look too much to the mines. Just as the discovery of the diamond mines saved the Cape Colony from dire financial distress, so we have the President of the Transvaal Chamber of Mines saying, at the last annual meeting of that body, that "the prosperity and, indeed, the whole fabric of the Union is largely based on the mining industry." Prof. Orr continues, "But the mineral wealth of the Transvaal will not last for ever—the gold mines are a diminishing asset. Transvaal dividends amounted in 1916 to over nine million pounds, but the Rand cannot go on indefinitely contributing over 50 per cent. of the total revenue of the Union. We have examples from history to show that, where enlightened action has prevailed, the revenues derived from mineral wealth, instead of being utilised to lighten the burdens of the general taxpayer, have, to a liberal extent, been devoted to the general development of the country, and the establishment of industries to take the place of the worked-out mines, including of necessity ample provision for education and technical training and research."

Professor Orr referred to the industrial census now being compiled, which, he said, will be awaited with much interest, since, for the first time, we shall be put in possession of the details of the industrial activities of the Union, apart from the already published statistics relating to power. The recent conference of manufacturers at Capetown, described by the Minister of Mines and Industries as "the most important conference that had ever been held in South Africa," and at which a Chamber of Industries was formed, betokens an admirable spirit of co-operation. It is also a hopeful sign of the recognition of the importance of new industries that some of the larger towns in South Africa are offering special facilities for the acquisition of factory sites and power and water at cost price. Every country is dependent to a greater or less extent on other countries for its raw materials, and we are all familiar with the efforts which are now being made to make the Empire self-supporting as regards raw materials for industries. South Africa must benefit by its inclusion in this scheme; for example, the world's principal source of chrome ore, so valuable in special steel making, is in Rhodesia, and the Prieska district is said to possess the largest deposits of asbestos in the world. Broadly speaking, Professor Orr's conclusions are simply that "greater opportunities for employment are essential; the mines, existing industries, land settlement, afforestation, etc., are not sufficient. South Africa now meets its own requirements in portland cement; the position must be extended in all directions. A demand must be created for the 'factory hand,' and this is one of South Africa's greatest needs." These are fairly obvious and familiar truths, and none the less valuable continually because repeated at a science congress in Stellenbosch.

THE HALF-YEAR'S DIVIDENDS: TRANSVAAL GOLD-PRODUCING COMPANIES.

The following tables show the dividends declared by Transvaal mining companies for the half year ended June 30, together with the notification for the corresponding period of last year for purposes of comparison:

RAND COMPANIES.

Company	Date	No. of Div.	Rate %	Capital £	Amount £	Rate %	Amount £	Corr. Period last Year.
Brakpan Mines	June 11	22½		760,000	171,000	22½	168,750	
City Deep	June 10	22½		1,250,000	281,250	22½	281,250	
City & Suburban	June 35	6½		1,360,000	85,000	6½	85,000	
Consol. Langlaagte	June 8	10		950,000	95,000	12½	118,750	
Con. Main Reef	June 18	5		924,364	46,218	6½	57,772	
Crown Mines	June 32	20		910,116	188,212	25	235,026	
Durban Roodepoort	May 86	5		125,000	6,250	10	12,500	
Durban Road, Deep	June 14	2½		110,000	11,000	2½	11,000	
East Rand Prop. Ms.	—	—		2,445,897	—	2½	61,148	
Ferreira Deep	Mar. 28	17½		980,000	171,500	22½	220,500	
Geduld Proprietary	June 6	5		970,000	48,500	5	48,500	
Goldenhuis Deep	June 35	12½		585,753	73,219	12½	73,219	
Ginsberg	June 28	5		210,000	10,500	7½	15,750	
Jupiter	June 6	3½		1,014,200	38,032	5	50,710	
Knights Deep	June 21	5		743,526	37,176	7½	55,764	
Langlaagte Estate	June 53	5		886,500	44,325	5	44,325	
Langlaagte Estate	—	—		472,012	—	2½	11,800	
Meyer & Charlton	June 55	50		200,000	100,000	45	90,000	
Modder B.	June 10	40		700,000	280,000	37½	262,500	
Modder Deep	June 5	40		500,000	200,000	30	150,000	

Company	Date	No. of Div.	Rate %	Capital £	Amount £	Rate %	Amount £	Corr. Period last Year.
New Goch	June 10	5		550,000	27,500	5	27,500	
New Heriot	May 16	30		115,000	34,500	35	40,250	
New Kleinfontein	—	—		1,151,540	—	—	57,577	
New Modderfontein	June 22	16½		1,400,000	227,500	16½	227,500	
New Primrose	June 18	—		325,000	—	5	16,250	
New Unified	June 18	7½		250,000	18,750	10	25,000	
Nourse Mines	June 26	6½		827,821	51,739	5	41,391	
Robinson	June 50	3½		2,750,000	96,250	4	110,000	
Robinson Deep	June 3	4s.		per "A" Share	100,000	4s.	per "A" Share	100,000
Rose Deep	June 32	12½		700,000	87,500	15	105,000	
Simmer & Jack	June 30	3½		3,000,000	112,500	3½	112,500	
Van Ryn	June 27	17½		500,000	87,500	17½	87,500	
Van Ryn Deep	June 8	20		1,196,892	239,378	20	239,378	
Village Deep	June 18	7½		1,060,671	79,551	8½	92,809	
Village Main Reef	June 32	10		472,000	47,200	10	47,200	
Witwatersrand	June 26	20		469,625	93,925	25	117,406	
Wit. Deep	June 23	5		550,000	27,500	12½	68,750	
Wolhuter	April 19	6½		860,000	53,750	7½	64,500	

OUTSIDE DISTRICTS GOLD MINES.

Glyn's Lydenburg	—	—	10	170,000	17,000	7½	12,750
Sub-Nigel	June 9	7½		431,580	32,368	5	21,579
Transvaal G.M. Ests.	Mar. 22	5		604,225	30,211	10	60,423

PERSONAL.

Mr. H. A. De Beer has resigned his position as manager of the Transvaal and Rhodesia Estates, Ltd., and associated companies, to take effect from the 31st prox.

* * *

The following have been elected office-bearers for the ensuing year of the Rhodesia Scientific Association: President, Dr. G. Arnold; vice-presidents, Mr. A. E. V. Zealley and Mr. W. F. Molee; Council, Rev. Fr. Goetz, Rev. S. S. Dornan, Messrs. H. M. G. Jackson, C. H. Pead, A. J. C. Molyneux, Geo. Johnson, F. Issels, and F. P. Mennel.

A graceful obituary notice of Mr. Harry Austin Piper, whose sudden death we announced the other day,

The Late Mr. Piper.

appears in the last issue of the London *Mining World*. Mr. Piper was actually on his way home from South Africa, when on board the steamer he was attacked with pneumonia, from which he never recovered. On arriving at Plymouth Mr. Piper was so ill that he landed there, and it was there that he died. "After a strenuous life in the exercise of his profession, it had been his intention to retire from business and to spend the remainder of his days in this country, but Providence willed it otherwise, and the profession is now left to mourn one of its most distinguished representatives." Mr. Piper for 22 years well and faithfully served the Globe and Phoenix Gold Mining Company. For a short period in the early history of the company he acted as its general manager, but subsequently occupied the post of consulting engineer, which he filled till his death. His connection with the Globe and Phoenix began with the formation of the company in 1895, and might possibly have commenced before that period, though of this our contemporary has no positive knowledge. Besides being consulting engineer to the Globe and Phoenix, Mr. Piper occupied a similar position in connection with the Gold Fields Rhodesian Development Company and its well-known group, which comprises the Antelope, Eldorado, Banket, Falcon and other mines. Mr. Piper was of a retiring disposition and of most unassuming manner. He has left a widow and four children.

The dividend of the Lonely Reef Gold Mining Company,

Lonely Reef Report.

compared with 15 per cent. for 1915. From the annual report and accounts of the directors, it will be seen that improvement is shown on the yearly comparison as regards the quantity and grade of the ore milled, 59,240 tons being crushed for 41,491 ozs., being an average return of 14 dwts., or 58s. 10d. per ton crushed. The tonnage milled during the year was equivalent to 4,937 tons monthly and 2,330 tons more than during 1915. The value of the bullion recovered during last year was £174,845, against £154,712, the difference being due to the larger tonnage and the higher grade of the ore milled. The working expenses for the year, including royalty, maintenance, and administration charges, amounted to £108,377, or 36s. 7d. per ton crushed; but at the mine working costs were 27s. 8d. per ton milled, against 25s. 9d. in 1915, or an increase of 1s. 11d. per ton. The consulting engineer in his report points out that the higher costs in 1916 were due in part to the increased charges for stores, which were purchased at war prices; in part to increased bullion realisation charges; and in part to increased cost of maintenance. The profit and loss account for the year shows a realised profit of £68,187, to which has to be added the balance of £20,059 brought forward from 1915, making a total of £88,246. Dividends absorbed £12,006; provision for British income tax and French fiscal taxes, and additional remuneration payable to directors on dividends declared, £20,339; while £9,329 was appropriated for depreciation and sundry amounts written off; the balance of unappropriated profits at the end of 1916 being £16,573. The supply of labour throughout the year was ample. The Lonely Reef will soon be the deepest mine in Rhodesia. The consulting engineer states in this connection that the special problems attending deep mining have been anticipated as far as possible, and that arrangements are being made to carry the work to still deeper levels. The promise of improvement in the development of the mine held out at the end of 1915 has been fulfilled. The ore developed in the main ore shoot in the bottom levels has proved to be as high grade as the richest ore found in the upper levels of the mine. As compared with the previous year, the ore reserves have declined in tonnage but increased so much in value that they are worth £126,000 more than at the end of 1915.

THE NATAL COALFIELDS: PHASES IN DEVELOPMENT.—II.*

[By WM. TAYLOR HESLOP, St. George's Colliery.]

The Action of Dolerite on Coal.—The difficulties incidental to the piercing of the dolerite sheets in order to reach the deeper coal seams, serious though they may be, are trifling compared to the geological effects of the dolerite on the Natal coalfields. There are comparatively few places in the coalfield where a deep drill would not intersect one or more horizontal sheets of dolerite. The extent and continuity of these intrusions is without parallel in any coalfield of the world. In other fields the igneous intrusions may be of a larger scale, but the extent of lateral travel, in the shape of sheets, is very much less. A vertical intrusion will, by the heat emitted at the time of extrusion, deleteriously affect the coal for some yards on either side, but the horizontal sheets frequently affect the coal over areas many square miles in extent. Between Hatting Spruit and Damhauser, and extending east and west, there is an area of over 50 square miles in extent affected in this manner. Several years ago the writer estimated that about three-fourths of the Natal coal areas were affected by igneous action. Subsequent exploration and investigation indicates that 90 per cent. would have been a much nearer estimate, and that of the total coal areas of Natal, not ten per cent. can be considered of sufficiently good quality for present day market requirements. The speculator, who has the misfortune to lay out his money, without making sure that he is exploiting some of that ten per cent. of good coal, instead of some of the ninety per cent. of inferior mineral, is likely, therefore, to pay dearly for his experience. Thanks to those who have paid thus dearly, Natal coal is not a popular field for the capitalist. The stranger to Natal, whether mining engineer or layman as far as coal is concerned, frequently asks how it happens that in Wales and in Pennsylvania anthracites and semi-anthracites can be used to such advantage, whereas in Natal it should be discarded as useless. In Wales, anthracite is mined to a considerable extent, and used for special purposes, such as malting, and in suction gas producers. The semi-anthracite, or steam coal, containing 12 per cent. to 15 per cent. of volatile matter, is used for naval purposes, and is considered the best steam coal in the world. The Pennsylvania anthracite is used almost exclusively in New York for domestic purposes, and is also used extensively for steam-producing purposes. Then why should a similar class of coal be refused a market in Natal? The best answer to this question is to try the experiment of burning Natal anthracite. If we burn a piece of bituminous coal we notice that tarry matter bubbles from it, and that the whole lump swells up, and leaves a porous spongy cinder. The Natal anthracite on the contrary does not swell up and become spongy, but decrepitates violently into splinters, which burn from the outside, until surrounded by a non-conducting jacket of ash, which shuts off the further access of oxygen. This ash in reality contains a nucleus of unburnt coal, and that nucleus represents lost fuel and reduction of efficiency. The envelope of ash indicates retarded combustion, i.e., a slow burning coal. The Welsh coal with only 1 per cent. to 3 per cent. of ash, cannot furnish sufficient material wherewith to manufacture a combustion retarding envelope, and moreover has not the same violence in decrepitation. The American coal has more ash than the Welsh, but less than Natal, and experience has compelled the use of shaking fire bars to throw off the superfluous ash, and thus accelerate combustion. Some day, not so many years hence, we shall be compelled to adopt similar expedients. Meanwhile, there are large areas of coal, more or less affected, for which there is no present demand, although bye-products and suction gas developments may furnish an outlet. The range of action of the dolerite on the coal depends on the thickness of the former, and on the thickness of intervening strata. Generally the effect will be noticed for a distance equal to 66 per cent.

to 75 per cent. of the thickness of the sheet. In an actual test by the writer, coal was affected for a distance of 17 feet from igneous intrusions 22 feet thick.

Winning the Coal.—In the early days of the industry all the coal was cut by hand picks, and small pillars were left to support the roof, with no thought of future extraction. Before long the irregularity and unreliability of native labour compelled mine managers to turn their attention to mechanical methods of coal-cutting. To Mr. David Harris of Elandslaagte belongs the honour of being the first to introduce mechanical coal cutters, not only into Natal, but into Africa. In 1899 he installed an experimental Jeffry electric driven coal cutter. Its success led to a complete installation of coal-cutters and electric locomotives a little later. At a still later period he superseded the Jeffry machine with the stronger and more adaptable Sullivan chain machine. In 1902 the Dundee Coal Company installed a large Jeffry coal-cutting plant, and Jeffry electric locomotives, before which time their plant and methods were primitive in the extreme. Scarcity of native labour compelled other collieries to follow suit. Where fire-damp was prevalent, electricity as a motive power was inadmissible, and the collieries were obliged to instal compressed air. With compressed air, there was more latitude in the choice of coal-cutting machines. St. George's Colliery adopted the American "Puncher" of Sullivan make, and, to use an Americanism, "fool-proof" in character. Natal Navigation, with characteristic Scotch caution, adhered to the Jeffry type already proved by Harris at Elandslaagte. At the Durban Navigation, Mr. T. G. Colquhoun introduced the newer Siskol percussive machine, and his example was followed by the Glencoe and Cambrian Collieries. Gradually every colliery installed some form or other of mechanical coal cutters. At most of the collieries mining is on the "bord and pillar" system, the "bords" being from five yards to six yards wide, the size of pillars being dependent on depth, up to thirty yards square. At some of the shallow mines with thin seams the Welsh single or double shell method has been adopted to a considerable extent, and a good roof tempted with stall widths up to 42 feet. The long-wall method has not been adopted to any extent, although at some mines the natural conditions are very much in its favour. For the haulage from the tramming stations to the shaft the endless rope system is almost everywhere in use. Where conditions are normal the ordinary swan-neck jockey is generally used. At several collieries a jockey made of crucible steel but on the same principle as the swan-neck jockey is found to have many advantages in point of both efficiency and maintenance costs. Its use upsets the principle held by many engineers, that the material of the jockey should not be as hard as the material of the rope. The justification is, that a jockey that grips causes less wear to the rope than a worn jockey of softer material that allows the rope to slip through it. The crucible steel jockey head swivels on a mild steel shank. In many mines branch haulage roads are operated from separate ropes driven from the main haulage by a keyed C type wheel operating a friction clutch. In others the one rope is carried round the branch and back to the main system, in which case a derailment on the branch entails stopping the main haulage. Formerly electric locomotives were employed to a considerable extent at Dundee and Elandslaagte, using continuous current at about 250 volts from bare overhead conductors, but maintenance was found to be too expensive.

Pillar Extraction.—In the early days of the field, the pillars of coal left to support the roof were as small as possible; managers for the most part thought the coal field inexhaustible, and that it was quite unnecessary to think of extracting pillars, whilst coal owners, generally speaking, were not aware that it was possible to extract pillars. In one case directors were so impatient for output, that pillars were reduced below safety limits, and the colliery nearly

* Paper read before the C.M. and M. Society of S.A.

sacrificed entirely, in the effort to meet those impatient demands. With deeper workings, it became necessary to leave larger pillars to support the heavier roof, and it was incumbent upon engineers to consider and adopt methods of working, which would permit of the extraction of all the coal, instead of wasting 30 per cent. to 50 per cent. Where only one seam of coal was concerned, this involved no special difficulty, provided that the ultimate extractions of pillars was kept in view during the period of preliminary development, and the temptation to obtain cheap immediate output resisted. Where, as at many collieries, there are two workable seams in close proximity to each other, the difficulties of pillar extraction, such as they are, have increased enormously. All pillar extraction, it may be noted, involves the breaking and subsidence of the superincumbent rocks. In the coal measures these rocks break much more readily than the quartzites of the Witwatersrand, and also can be depended on to bend to some extent before they break. If the lower seam is extracted first, it is almost impossible to take out any reasonable proportion of the upper seam, without running grave risks. If the upper seam is extracted first, when the lower seam is tackled, only from 2 ft. to 6 ft. of sandstone protects the mines from the whole mass of broken rock overlying it. Heavy timbering is, therefore, necessary to protect the roads in the lower seam, and even then the roof gradually bends down or collapses under the strain. In consequence it is expedient to do as much as possible of the development on the retreating system, delaying the blocking out of pillars as much as possible. Alternatively, the writer has found that a system of blocking out both seams into pillars, exactly overlying each other, then taking out pillar by pillar, first the top seam, then the lower one, saves much of the cost of road maintenance, and offers many other advantages. The total extraction of two seams lying so close to each other, has not

been generally attempted, and has involved a good deal of experimental work, as well as the consideration of the effects of big earth movements, and their action both on roof and on coal. The primary object of working both seams out entirely is, of course, the prolongation of the colliery's life, by preventing the waste of coal. From a company's point of view, that is only justified if the profits gained during the added period of life, more than compensate for any extra working costs. Such a policy can only be possible when both manager and directors are prepared to face the future, as well as the present. But from the point of view of the public interest, the question whether any colliery should be allowed to waste national assets, which can never be replaced, is one of paramount importance. South Africa is by no means so rich in coal as was formerly supposed, and even if the individual shirks his duty to future generations, the national spirit will, sooner or later, recognise national responsibility towards posterity. Coal is being wasted to-day in South Africa in a manner that no British royalty owner would ever for a moment permit in one of his mining leases. The British royalty owner has only his family to consider, South Africa has its responsibility to the future of the nation. To prevent such waste by prohibitive legislation is by no means an easy problem. Questions of payability of seams, and more particularly of what constitute waste, are by no means easy. A special tax on wasted coal, or preferably a tax on output wherever workable coal is being wasted, would be somewhat simpler, and more practicable. The difficulties would be great, but such as they are, they have been in practice overcome by British royalty owners. The extraction of pillars from both seams solves another problem which, during the last few years, has loomed large in Natal coal mining, namely, the problem of goaf fires.

(To be continued.)

ANSWERS TO CORRESPONDENTS.

All enquiries addressed to the Editor must bear the writer's name and full address. We cannot reply to enquiries by letter, but telegrams with replies prepaid will be answered. Correspondents are requested to write their names and pseudonyms distinctly.

"A.S." (Graskop).—Your questions involve too many considerations for a brief reply here. A full statement on the subject will appear in our next issue.

"Base Metal."—A company styled the Rhodesia Lead and Zinc Syndicate, Ltd., was registered at Salisbury last year with a nominal capital of £10,000.

"Woluter."—The position is, if anything, better; and the new control should have a good effect.

"Miner."—The Transvaal last year, it is estimated, produced about 40 per cent. of the world's gold output; the Transvaal with Rhodesia about 44 per cent.

W.P.D.—(1) No. (2) The process is proving highly successful.

"Shareholder."—The appeal has been dismissed with costs, and the result will doubtless be liquidation for the losing company.

"Que Que."—(1) Like other similar shares, highly speculative, even at present prices. (2) A good investment. (3) June and December.

British Manufacturing Firms of importance wish to correspond with and appoint Agents for the sale of Machinery, Plant and Stores, suitable for Mines, Collieries, Sugar & Rubber Plantations, Light Railways, Irrigation, Docks, etc. Application in the first instance, with references, to Box M 1460, c/o of Dawson's Advertising Agency, 121, Cannon Street, London, E.C. 4., England.

The report dealing with the labour conditions in the Union issued by the Mines and Industries Department for the month of May shows the following applications for employment: Johannesburg, 100; Pretoria, 97; Capetown, 120; and Durban, 125. The applications from employers were: Johannesburg, 34; Pretoria, 62; Capetown, 229; Durban, 66. Work was found in Johannesburg for 32, Pretoria 57, Capetown 51, and Durban 38. The Johannesburg Superintendent reports: "Although three industrial disputes took place during the month, the labour market has not been seriously disturbed except in respect of the loss in wages through the stoppage of work, which has been considerable with the three strikes which took place. As strikes go, they were carried out in an orderly manner, that is, free from any violent action. Thirty-three per cent. of those who registered were found employment, and perhaps as many more got work through their own efforts, so that unemployment does not appear to be an acute problem at the present time. The advance in wages in the building trades in Johannesburg and Pretoria is not in itself likely to affect building operations seriously; the increase in imported material and the difficulty in getting supplies even at the increased cost is considered the more important. Corrugated iron has gone up in price over 200 per cent. since August, 1914, and it is now being displaced for roofing purposes by South African manufactured tiles. Roofing timbers require to be heavier, and the tiled roof looks more substantial, while the actual cost is about the same as the corrugated material imported. At present the demand for roofing tiles is much greater than the makers can supply. Similar difficulties are experienced in the engineering trades, but with this difference, that they are unable to find a local substitute." The Pretoria Superintendent reported, *inter alia*: "There is an increase in the number of men seeking clerical employment, vacancies for such not being readily found, as few demands for that class of service are sent to this office. On the other hand, the demand for men engaged in various capacities in the building trades is fairly regular, and, as a rule, promptly supplied. The demand for smart lads as messenger boys continues to be in excess of the supply, all suitable applicants having been placed and still a few vacancies to fill. There is fortunately a steady decrease in the number of unskilled labourers seeking work, there being but few now that cannot get employment."

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THE WEEK IN THE SHAREMARKET.

Quotations ex Dividend—Prices Good—Business Restricted.

THE market was generally harder on Saturday morning. Springs maintained their overnight gains, also Government Areas, Van Ryn Deeps, and Sub Nigels. The Modder trio were strong, and no selling quotation for New Modders was obtainable. Kleinfonteins took a turn for the better, and after the call were worked up to 18s. buyers, on the strength of reported profits at an increased rate a month. African farms continue to be a weak feature, and there was no buying offer whatever.

Monday's performance at the call was very nearly a record. One sale of Government Areas went through, and four others only in stocks under 5s. In comparing the prices with those of Saturday, it must be noted that 39 stocks were ex dividend. The market became more active after the call, and there were numerous dealings in Government Areas.

On Tuesday morning business expanded to the extent of six sales at high 'Change. Prices, however, were firm, and nothing was being given away except Knight Centrals and Bantjes. Modder B's and Deeps were both in demand at better rates, but New Modders were only enquired after in odd lots.

On Wednesday there was no increase in the volume of business, but on the whole prices were satisfactory, notably in Springs Mines, Government Areas, Modder B's and Deeps. Rooibergs had another push back; in short, all tin stocks are neglected, notwithstanding the enormous advance in the price of the metal. The Exchange was closed in the afternoon in honour of Independence Day.

On Thursday morning another lower depth was touched with four sales on high 'Change. Yet prices are wonderfully firm, and someone was actually found to take a parcel of Knight Centrals. The following are the week's quotations for outside stocks. Sales, with hardly an exception, have been in odd lots:—Sales: S. Van Ryns, 7s. 4d. to 7s. 6d.; Hendersons, options, 1s.; Monteicos, 49s. to 55s.; Sakalavas, 4s. 6d. to 5s.; Erfbloom, 6s.; Invicta, 22s. to 24s.; Union Gold, 21s.; S.A. Alkali, 34s. Other prices: Union Tins, 3s. 3d. to 3s. 6d.; Rietspruits, 2s. 6d. buyers; Hendersons Estates, 4s. 6d. to 5s.; Modder East options, 7s. to 7s. 6d.; Union Tin, 3s. 3d. buyers.

The market was more active on Friday morning, with a corresponding increase of business. Prices, where altered, were generally better, as may be noted by the list below, the only exceptions being Van Ryn Deeps, Knight Centrals, and Daggafonteins. Sales: Aurora Wests, 14s. 6d.; Consolidated Main Reefs, 16s. 3d. and 16s. 6d.; Geduld Props., 37s.; Modder Deeps, 46 12s. 6d.; New Elands, 26s.; Sub Nigels, 24s. 6d. and 24s. 4½d.; Van Ryn Deeps, 60s. 6d.; Knight Centrals, 3s. 6d. Buyers and sellers: Modder B's, £7 11s. to £7 12s. 6d.; Daggafonteins, 22s. 3d. to 22s. 6d.; City Deeps, 73s. 6d. to 74s. 6d.

	Fri. 29th.	Sat. 30th.	Mon. 2nd.	Tues. 3rd.	Wed. 4th.	Thurs. 5th.
African Farms	8 0†	7 9*	7 8	8 0†	7 9*	8 0†
Apex Mines	7 0*	7 3	—	—	6 6	7 0†
Aurora Wests	15 6†	14 6†	—	—	14 6†	13 6*
Bantjes Con.	4 4	4 7	4 9	4 6	4 4*	4 3*
Brakpan Mines	98 6*	100 0b	97 0†	—	—	—
Breyten Collieries . .	—	—	17 0†	—	—	—
Brick and Potteries . .	—	5 0*	—	5 0*	5 0*	—
British South Africa .	—	10 0*	—	—	—	10 0*
Bushveld Tins	—	—	0 3*	0 3*	—	0 3*
Cassell Coals	—	—	—	—	—	27 0†b
Cinderella Cons. . . .	—	—	—	—	6 0†	4 0*
City & Suburbans . . .	28 6*	29 0*	24 0*	—	24 6*	21 6*
C. City Deeps	78 0	77 0	71 6*	72 0	71 6*	71 6*
Cloverfields Mines . . .	7 9*	8 0	—	—	—	8 0*
Clydesdale Collieries .	12 6*	12 6*	—	—	—	—
Concrete Construct. . .	—	0 6*	—	—	0 6*	—
Con. Investments . . .	—	—	16 0*	16 0*	—	—

*Buyers. †Sellers. ‡Odd lots. bEx London.

	Fri. 29th.	Sat. 30th.	Mon. 2nd.	Tues. 3rd.	Wed. 4th.	Thurs. 5th.
Con. Langlaagtes . . .	21 6*	21 0*	—	22 0†	22 0†	22 0†
Con. Main Reefs . . .	16 0	16 0*	15 0*	15 0*	—	15 6*
Con. Mines Select. . .	23 9*	23 9*	23 9*	23 9*	23 9*	23 9*
Coronation Collieries .	—	33 0*	31 0*	—	—	—
Crown Diamonds . . .	—	1 3*	1 6*	1 6*	1 6*	1 6*
Daggafonteins	22 0*	22 0*	22 0*	22 0*	22 3*	22 6*
Durban Roodepoort . .	15 0†	—	—	16 0†	15 0†	15 0†
East Rand Cents. . . .	10 0*	10 0*	10 0*	10 0*	10 0*	10 6*
East Rand Coals . . .	1 11*	1 11*	1 11*	1 11*	1 11*	1 11*
East Rand Deeps . . .	—	—	—	—	1 0†	0 10†
East Rand Minings . .	14 0†	—	14 0†	—	14 0†	14 0†
East Rand Props. . . .	5 3*	5 0*	—	6 0*	6 0*	6 0*
Eastern Golds	1 0*	1 0*	1 0*	—	1 0*	1 0*
Frank Smith Diams. . .	3 4*	3 4*	3 6	3 5*	3 4*	3 4*
Geduld Props.	36 6†	36 6	35 6*	35 6*	35 6*	36 6*
Glencairns	1 0*	1 0*	—	1 0*	1 0*	—
Glenc. Collieries . . .	9 6*	9 6*	—	—	9 0*	—
Glynn's Lydenburgs . .	—	—	—	15 3*	16 3*	—
Government Areas . .	61 9	62 3	62 3	62 3*	62 3	63 3*
Jupiters	4 9*	5 0*	—	—	—	—
Knight Centrals	4 11	5 0	4 4	3 9	3 6*	3 8
Knights Deeps	—	—	—	—	17 6†	15 0†
Lace Props.	4 6	4 6*	4 7*	4 6*	4 7*	4 7*
Leucuppoort Tins . . .	—	13 0*	—	12 0*	12 0*	12 0*
Luipardsvlei Ests. . .	—	3 6*	—	—	—	3 0*
Lydenburg Farms . . .	7 3*	7 4	7 1*	7 1*	7 2*	7 1*
Main Reef Wests . . .	3 10	4 0†	3 6*	3 9†	4 0†	3 4*
Meyer & Charlton . . .	105 0*	—	—	—	—	—
Middelvlei Est. . . .	1 0*	—	—	1 0*	—	1 0*
Modder B	153 0	154 0*	145 6*	146 0*	150 6a	150 6*
Modder Deeps	136 6	137 6	128 0*	129 6*	130 0*	131 6*
Natal Nav. Collieries .	18 6*	18 6*	—	—	17 9*	17 9*
New Boksburgs	1 3*	1 3*	1 0*	—	—	1 0*
New Eland Diams. . . .	27 6*	28 6*	29 6†	28 6†	26 0*	28 6†
New Era Cons.	9 0	8 9*	8 0*	9 0	8 9*	9 0*
New Geduld Deeps . . .	6 4*	6 3*	6 4*	6 4*	6 4*	6 4*
New Heiots	33 9*	—	—	—	—	—
New Kleinfonteins . .	17 3	17 6	17 9*	17 6*	17 6	17 9
New Modders	422 6	423 9*	407 6*	—	420 0†	—
New Unifeds	—	9 0*	10 0†	10 0†	—	—
Nigels	—	—	—	—	2 6*	2 0*
Nourse Mines	20 0*	20 0*	—	—	20 6†	20 0†
Pretoria Cements . . .	87 6*	87 6*	83 0*	—	84 0*	86 0
Princess Est tes . . .	1 6*	1 6*	1 6*	1 6*	1 6*	1 6*
Rand Collieries	—	2 2*	—	—	—	—
Rand Klips	8 9*	9 0	8 9*	8 10*	8 10*	9 0*
Rand Nu leus	—	1 4*	—	—	1 4*	1 4*
Rand Select. Corp. . .	74 0	73 9*	71 0*	71 0*	70 9*	71 6*
Randfontein Deeps . .	4 9*	—	4 9*	4 6*	4 6*	4 9*
Randfontein Ests. . . .	13 0†	—	12 9*	13 0*	12 9*	12 9*
Roberts Victors	8 0†	—	—	—	—	—
Rooibergs	6 6	6 9	6 9*	7 3	6 8	6 6*
Rose Deep	17 0*	18 0*	—	—	—	—
Rietkuil	—	—	—	—	—	1 3†
Ryan Nigels	—	—	2 0*	—	—	—
Shebs	1 0†	0 11*	0 11*	1 0†	0 11*	0 11*
Simmer Deeps	1 9*	1 9*	1 9*	1 10*	1 10*	1 10*
S.A. Lands	4 6	4 6*	4 6*	4 6*	4 7	4 8
Springs Mines	58 6	59 0	58 6*	58 6*	59 0	59 0*
Sub-Nigels	25 6	26 0	24 3*	—	24 3*	24 0*
Swaziland Tins	30 0†	—	—	—	24 6*	24 6*
Trans. G.M. Estates . .	13 3*	13 0*	13 0*	13 6*	14 0*	14 6*
Trinevaal Lands	10 0*	9 6*	10 0*	10 0*	10 0*	10 0*
Van Ryn Deeps	65 6*	65 6*	61 0*	61 3	61 0*	61 3
Village Deeps	23 0*	—	23 6†	23 0†	23 0†	23 6†
Village Main Reefs . .	17 0	—	—	—	—	—
West Rand Cons. . . .	—	—	6 6†	6 6†	6 6†	6 6†
West Rand Estates . .	—	1 0*	—	—	—	1 0*
Witbank Collieries . .	—	—	43 0*	—	—	—
Witwatersands	42 6†	42 6†	—	—	—	38 6†
Wit. Deeps	14 0*	15 0†	14 0†	—	12 0*	11 6*
Woluhutens	8 3*	8 3*	8 3*	8 6*	8 0*	8 3*
Zaaiplaats Tins	5 10*	5 11*	6 0*	6 1*	6 1*	6 1*
Union 5 per cent. . . .	£100 8s. 1½d.†	£100 8s. 1½d.†	£100 8s. 9d.†	£100 8s. 9d.†	£100 8s. 9d.†	£100 8s. 9d.†

*Buyers. †Sellers. ‡Odd lots. bEx London.

South African Collieries, Ltd.

A bonus of five per cent. (one shilling per share) will be paid to shareholders of the South African Collieries, Ltd., registered in the books of the company on 10th July next.

METALLURGICAL PROBLEMS OF THE RAND.—IV.

[By H. FORSTER BAIN.]*

BALL-MILLS

The alternative for stamps is some form of rolls, edge-runners, or ball-mills, and many of these have been tried. So far all have proved to consume so much steel as to offset what other advantages they show. This is imputed by Caldecott to the fact that all of them introduce abrasion, which is interesting, since about two thirds of the crushing on the Rand is now done in tube mills, where abrasion is most important. The figures already quoted demonstrate that the crushing done in the tube mill costs less than that accomplished by the stamp, a fact fully appreciated on the Rand, where the tendency is to throw more and more of the work on the tubes. The explanation of the paradox is the fact that the "pebbles" in the tube mills are merely roughly rounded pieces of ordinary basket. Their abrasion is therefore a benefit rather than the reverse. If the work now done were accomplished by means of steel, or even barren chert pebbles, the economic ratio would be seriously disturbed. In Canada and the United States the ball mill has been gaining ground recently at the expense of stamps. The reason for the renewed interest lies in improved methods of discharge, as in the Marcy mill, coupled with the sizing action of the conical shape in the case of the Hardinge. At a number of mines where competitive tests have been made, ball mills have been substituted for stamps both on the basis of economy of floor space and of lower power consumption. At the Dome, where C. W. Dowsett, formerly at the Brakpan, is mill superintendent, Hardinge ball mills are being substituted for stamps to crush 3 in. material to $\frac{1}{4}$ in., with 50 per cent. passing 100-mesh. For this purpose an 8-ft. mill, 30 in. long, driven by a 125-h.p. motor, is used. C. D. Kaeding, the general manager, states that the steel consumption from balls is 0.22 lb. per ton and he estimates the liner consumption at 0.60 lb. At the McIntyre a 6-ft. mill showed a total steel consumption of 1.03 lb. per ton. This may be compared with half a pound per ton with stamps on the Rand. In this connection it may be mentioned that extensive trials completed some time ago on the Rand with the Giesecke, a double-chambered tube mill, showed a quite prohibitive consumption of steel balls. As the ore in the Porcupine district is a comparatively soft though tough schist, the Dome metallurgists are not willing to commit themselves as to what a ball mill would do there. In this connection a word of caution may be appended as to the results of short-time tests. As balls are usually made, by forging, they are much harder on the exterior than through the whole ball. A new charge therefore gives better results as to steel consumption than a true average. Another machine which is attracting attention for intermediate work is the disc-crusher. This has the advantage of great freedom of discharge, since the ore is fed through the centre and the material passes out around the circumference of a circle, the action being rendered positive by employment of centrifugal force. It also has the advantage, which may prove important on the Rand, that the crushing is not accomplished by rolling or abrading, but by pinching or nipping. The action is similar to that in a jaw-crusher since the two horizontal revolving discs are set slightly eccentric to each other so that the two rims approach and recede as do the jaws of an ordinary crusher. One of the disc-machines has been used in crushing waste-rock on the Rand for road-making. Last spring the Mines Trials Committee began a series of tests upon it to determine its availability for regular work in the mills. The preliminary figures showed remarkable results as regards quantity of material handled and power consumption, but the excessive consumption of steel was found to offset all other advantages, and the disc-crusher was condemned as wholly inapplicable to Rand ore.

AMALGAMATION

If the hardness of the ore is a serious detriment to low crushing costs, the fact that the gold is "free" simplifies the succeeding treatment. Despite various changes, amalgamation still plays an important part in the recovery of the gold, although the use of coarse screens in front of the stamps has necessitated the transfer of the plates to a position below the tube mills. At the Homestake mill, Clark has shown that from 86 to 91 per cent. of the amalgamation is accomplished in the mortars and on the first two rows of plates, and it is common experience that the bulk of the gold is saved near the head of a string of plates. On the Rand amalgamation in the mortars has long been abandoned and the plate-area greatly restricted. It was, I believe, Mr. Maxwell at the Randfontein who first made a radical reduction in plate-area, but the practice has now become general, the minimum being in the Gold Fields mills, where there are only three plates of $4\frac{1}{2}$ by 12 ft. area per tube mill circuit. It has been found that the consumption of mercury is proportionate to the plate-area exposed, but the recovery of gold is not. With the efficient cyanidation plants now in use there has been no increase in tailing-losses in consequence of reducing the plate-area. Of the total value recovered in 1915, namely, £37,264,992, amalgamation was responsible for £23,809,801, or 64 per cent. Contrary therefore to the general impression, amalgamation is still much more important than cyanidation on the Rand. It is a bit surprising to contrast the small area devoted to plates and the big yield from it, with the acres of vats and other plant devoted to cyanidation. It is easy to see why local metallurgists hesitate to adopt any method that interferes with amalgamation; all the more in view of the fact that while the bulk of the gold exists in the rock in very fine particles, coarse gold is present and often in amounts sufficient to threaten serious tailing losses if the present system of cyanidation alone were relied upon.

CRUSHING IN CYANIDE.

It is this that has stood in the way of crushing in cyanide, despite the great saving that might be realised if the process were adopted. The objections are mainly the corrosion of the plates and the difficulty in sampling. Minor objections are the necessity for handling a baser bullion due to the cyanide dissolving copper from the plates, the need of a more expensive cyanide treatment, and the increased liability to loss from leakage. It is just possible that these difficulties are not so serious as has been thought. It was in 1892, I believe, that the process was tried at the May Consolidated and condemned, and much has been learned since that pioneer date. It has been my general observation that in mills where crushing in cyanide is practised the trouble with the plates is much less important than had been anticipated. At the Lonely Reef only a few months ago I was told that there was no trouble. While, owing to the small plate-area used on the Rand, amalgamation practice differs a little from that in other districts, it is still not easy to see why there should be any corrosion beyond the control of capable metallurgists. Remembering the years that shaking plates were built on the Rand because of some early experiments, only to be found later unnecessary and abandoned, and recalling various metallurgical experiences in other districts, the visitor wonders whether by chance this is another instance where a thing is believed to be impossible because it has not been recently tried.

(To be continued.)

The twenty-ninth ordinary general meeting of shareholders in the New Jagersfontein will be held at the company's office, 30, Stockdale Street, Kimberley, on Wednesday, 25th July, 1917, at 11 a.m.

* In the *Mining and Scientific Press*.

Rhodesian Section.

MAY MINERAL OUTPUT IN DETAIL.

WE have received for publication from the office of the Rhodesia Chamber of Mines (Incorporated) the following detailed statement of the mineral output for the month of May, 1917, with comparisons and values:—

MATABELELAND.

	No. of stamps.	Tons treated.	Yield, ozs.	Value, £
BULAWAYO DISTRICT—				
Abercorn (W. J. Lane)	5	115	102.91	427
Agincourt (S. Levin)	5 1P	500	104.62	434
Annasora (Rhodesia, Ltd.)	3 1P	307	191.19	792
Do. (sands)	—	472	131.89	808
Antelope G.M. (Rhod.), Ltd. 2BM 2P 1P	4,145	788.60	3,262	
Do. (sands)	—	3,813	1,514.41	4,786
Blue (W. Arbery)	5	925	129.98	538
Beeswing (R. Toshack)	5	120	40.93	170
Boomerang (Boomerang Synd.)	5	539	297.58	1,234
Do. (sands)	—	320	58.73	243
Bulawayo Main A (Aserman & Cormack)	5.	330	112.07	464
Do. (sands)	—	162	27.17	117
Camp (Carson Mines, Ltd.)	5	560	309.57	1,284
Do. (sands)	—	360	75.48	313
Cecil (Master Cecil Synd.)	3	83	48.54	201
Confidence (A. D. Hall)	5	626	97.69	405
Do. (sands)	—	540	51.59	226
Cream (C. G. Bancroft)	—	192	16.11	67
April and May (sands)	5	205	41.12	170
D.Y.R. (D.Y.R. Synd.)	5	97	104.41	433
Donove A (W. K. Early)	—	90	30.18	123
Do. (sands)	2	212	109.17	452
Durban (Durban Synd.)	—	140	46.87	174
Eagle Hawk (T. Berwitz)	2	250	90.19	374
Farvic (H. S. Henderson)	5	662	284.76	1,208
Do. (sands)	—	568	27.61	117
Flora (J. L. Henderson)	5	450	71.34	296
Frank's Luck (R. Aserman) April	(5)	145	21.59	89
Do. May	5	256	33.50	139
Fred (Trans. & Rhod. Synd.)	10 2P	1,850	1,208.48	5,010
Do. (sands)	—	1,850	372.14	1,543
Great Belingwe (R. C. Boyes)	5	270	47.49	197
Great Britain (Criterion G.M.)	5	250	37.70	156
Do. (sands)	—	160	13.40	56
Hanover (W. & A. Synd.)	5	540	152.28	631
Jessie (Harris & Smith)	10	305	85.32	354
Jumpers (J. P. McCay)	5	365	329.85	994
Do. (sands)	—	215	28.79	119
Do. (Blyth & Marriott) (sands)	—	591		
Do. do. (slimes)	—	616	56.11	234
Leisure (Jas. Mitchell)	5	75	19.58	81
Lone Hand (Armstrong, Furber & Alexander)	5	437	254.91	1,057
Do. (sands)	—	270	53.92	224
Louely Reef G.M. Co., Ltd.	20 3T	4,500	1,139.91	1,725
Do. (slimes)	—	4,500	2,933.56	12,161
Long John (Susanna Mines, Ltd.)	2 GR	5,344		
Do. (sands)	—	5,344	644.12	2,670
Mamba (Bawden & Chesworth)	5	360	130.79	542
Do. (sands)	—	175	29.15	122
Matabele Queens Co., Ltd.	10	1,800	316.02	1,431
Do. (sands)	—	1,800	484.32	2,008
Mayfair (Mrs. F. M. Whyte)	—	—	8.14	34
April clean up	—	—	20.38	81
Mission (T. A. Mathews)	11	100	7.33	30
Near By (R. Innes)	5	5	258.70	1,072
Nelly (F. D. Roscoe)	2H	675	113.35	470
Do. (sands)	—	270		
New Eclipse (J. R. Stewart)	5 1T	1,274		
Do. (sands)	—	320	240.17	1,020

	No. of stamps.	Tons treated.	Yield ozs.	Value, £
Newtonfontein (A. H. Newton)	3	400	392.24	1,626
Do. (sands)	—	200	42.38	176
Old Nic. (Chart. & Gen. E. & F. Co., Ltd.)	15 1P	2,432	549.46	2,275
Do. (sands)	—	1,350		
Do. (concentrates)	—	52	121.37	516
Peach A (Peach Synd.)	10	662	233.12	966
Prince Olaf (K. Johnsen)	5	310	161.19	668
Progress 2 (Progress M. Synd.)	10	696	305.73	1,267
Queens W. Ex. (Cumings & Berry)	5	600	226.80	940
Do. (sands)	—	685	152.16	631
Rathgar (W. H. Robinson)	5	330	44.53	185
Red Boy (H. Lunnun)	3	43	45.03	187
Red Rose (F. C. Barrett)	5	359	151.37	627
Do. (sands)	—	415	12.09	50
Rhod. Queen (Gilpin & Pickles)	5	80	41.55	185
Sabi (Fletcher & Williamson)	10	900	183.98	763
Do. (sands)	—	550	131.22	536
Sabi (Durrell & Gardiner)	—	840	52.36	217
Sable A (New Clifton)	—	—	—	—
C.G.M. & D. Co., Ltd.)	5	405	48.38	201
Slope 1 (E. E. Beecroft)	5	735	91.57	380
Star (Romoia Nigel G.M. Co.)	5	323	65.22	270
Do. (sands)	—	190	38.66	160
Verdun (P. J. Steyn) Mar.	3	50	5.93	25
Wolley Dog (Mrs. G. C. Davis)	5	380	77.33	321
Do. (sands)	—	308	53.72	223

Bulawayo District total

16,830.03 69,500

GWELO DISTRICT—

Aiderman (Williams & Woodger)	5	350	52.92	219
Do. (sands)	—	720	45.08	187
Bell Reef Dev. Co., Ltd. clean up	—	—	296.54	1,229
Bonsor B323 (Cornish Synd.)	10	600	71.22	295
Bonsor B327 (T. Roberts)	10	550	109.93	456
Canadians (H. A. Bradley)	—	26	—	—
(Copper ore treated at Falcon Mine)	—	—	—	—
Cactus (Renton & Gray) Apr.	5	320	39.70	165
Do. (sands)	—	304	5.90	24
Cap (W. Cock) (sands)	—	90	23.30	96
Connemara (Connemara Synd.)	20 1C	4,547	182.76	755
Do. (sands)	—	4,547	763.39	3,165
Conqueror (Leppington and McConkey)	2	168	129.54	537
Csardas (Wolfshal Synd.)	10	490	278.44	1,154
Do. (sands)	—	390	49.65	206
Do. (slimes)	—	100	13.50	56
Emerald (Linscott & Gibb)	5	750	114.39	474
Do. (sands) Apr. & May	—	780	41.42	172
Falcon Mines, Ltd.	26N 2T	16,250	3,143.00	15,095
Fed Up (A. Malcolm)	5	173	102.60	425
Gaika G.M. Co., Ltd.	5 1C 1T	3,572	796.69	3,379
Do. (sands)	—	1,500	877.11	3,720
Glen Hume (Glen Hume Synd.)	10	1,190	132.95	551
Do. (sands)	—	1,140	63.82	265
Glen Rosa (Glen Rosa Synd.)	10	539	64.18	266
Do. (sands)	—	400	35.49	147

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	No. of stamps	Tons treated	Yield, ozs.	Value £
Grube & P. & Co. (M. P.) Ltd. 40 10P	6,342	3,353.51	22,815	
Do. (sands)	—	8,139	1,813.68	7,617
Do. (slimes)	—	2,276	720.51	3,057
Do. (entrates)	—	294	389.49	1,636
Grube & P. & Co. (W. H. Peard) 4 2P	664	206.70	857	
Do. (sands)	—	445	71.82	298
Gretina Green (A. Malcolm)	50	14	71.74	340
Heldrich (Graham & Sharkey)	5	180	31.91	132
Ingomondo (F. C. Luvai)	H	580	125.11	519
Do. (sands)	—	180	28.51	118
Laywest (R. Bertoldi)	3	98	27.21	113
Margal (J. T. Woods)	5	15	6.25	26
Mass (W. M. James)	5	980	182.96	2,602
Pardo (F. C. Luvai)	5 1H	900	112.95	468
Do. (sands)	—	406	31.18	131
Renyle (A. & B. Synd.)	—	—	—	—
Do. (sands) April clean up	—	100	8.54	35
Do. do. May clean up	—	120	6.96	29
Snark (J. G. Walter)	5	354	58.12	242
Tabeke 1 (A. N. Tyrrell)	10	310	89.14	370
Trixie (S. Levin)	10	1,701	495.32	2,053
Do. (sands)	—	760	41.36	181
Vaux (Bentley & Soder)	—	—	10.42	44
Do. (Broken return Feb.)	—	—	—	—
Do. May	2	120	17.80	74
Venacity (L. R. Evans)	4	350	106.75	443
Do. (sands)	—	192	99.94	414
Vendur Trib. Synd.)	5	700	100.58	417
Walrus (J. Jones) April	6	100	19.90	82
Wanderer (Schliffe) G.M. Ltd.	10R	13,680	2,294.68	9,512
Zabonker (Holmes & Urdhart)	5	802	—	—
Do. (sands)	—	680	—	—
Do. (slimes)	—	324	218.31	1,029
Grube District total	—	—	20,815.85	87,725

MASHONALAND.

HARTLEY DISTRICT—

Acorn (Anzac Synd.)	5	283	256.32	1,062
Alexandra (Alexandra Synd.)	2	250	260.81	1,081
Do. (sands)	—	290	216.19	897
Arkinder (Keir & Rooke) slags,	—	—	—	—
September, 1916	—	—	—	11
Balaskie (C. E. Strange) pannings	—	—	1.99	8
Buffalo (E. A. Bealib)	5	470	83.57	346
Cam & Motor G.M. Co., Ltd.	RP	12,131	3,620.83	15,352
Campania (G. C. Hooper)	3	427	—	—
Do. (sands)	—	133	—	—
Do. (slimes)	—	294	89.59	373
Challenge (J. E. Poulton)	2	237	160.02	403
Cliff (H. F. Wilson)	5	40	9.13	38
Copenhagen & Victoria Webster	—	—	—	—
(and Beans) ram	5	300	76.71	318
Do. (sands)	—	320	28.90	120
Delby 1 W (Macdonald & Sale)	C	1,795	83.58	346
Do. (sands)	—	1,795	125.96	522
Dreadnought (Dreadnought Syn.)	—	—	—	—
sands	—	550	36.75	152
Eiffel, Bue Willoughby's Com.	—	—	—	—
Co. Ltd.	10	1,486	477.12	1,979
Do. (sands)	—	720	19.92	83
Elleen Alannah Min. Co., Ltd.	12N 2T	4,265	372.04	1,542
Do. (sands)	—	5,590	1,358.08	5,640
Emmy Ext. (E. G. Goodyer)	5	700	106.53	441
Do. (sands)	—	384	34.57	143
Glasgow Mines, Ltd.	5	641	172.14	714
Do. (sands)	—	336	53.68	222
Glendarra Pickstone G.M. Ltd.	5	1,000	563.01	2,331
Do. (sands)	—	600	88.98	368
Glendarra Ext. (Glendarra Syn.)	5 1C	850	84.87	352
Golden Valley (J. Mack & Co.)	10 1P	1,023	516.17	2,265
Do. (sands)	—	680	172.56	714
Hendon (A. E. Ward)	5	240	102.69	426
Do. (sands) Apr. & May	—	270	17.88	70
Invicta (J. J. Mangan)	5	328	110.16	456
Do. (sands)	—	260	36.40	151
J. & S. Luck (Mrs. S. Smith) Apr.	4	35	15.41	64
Kanvumba (Kanvumba Synd.)	10	580	291.16	1,207
Do. (sands)	—	580	75.76	314
Masterpiece (J. M. Flandert)	5	550	204.17	846

Monte Carlo (Monte Carlo Synd.)	H	120	19.41	81
Oak (A. Rolfe)	10	1,562	566.08	2,317
Do. (sands)	—	1,584	419.94	1,737
Owl Ext. (Cribb & Secord)	10	1,557	350.41	1,451
Do. (sands)	—	1,330	112.65	467
Pomposo (J. Knott)	2N	230	16.34	192
Reve (R. R. Antken)	5	721	137.00	508
Do. (sands)	—	577	93.37	388
Seigneury (Seigneury Synd.)	10	600	111.77	476
Do. (sands)	—	450	16.76	69
Tel-el-Kehir (Volk & Kerr) clean	—	—	—	—
up	—	—	13.69	57
Tessetche (Macfarlane & Clesham)	C	400	211.97	879
Venice (Venice Synd.)	C	800	—	—
Do. (sands)	—	800	161.55	670
Washington (J. J. Minna)	5	200	70.00	291
Do. (sands)	—	160	20.00	83
What Cheer (H. Moser)	10	735	203.31	843
Do. (sands)	—	525	36.65	151
Yellowstone (S. H. Hemlock)	5	250	41.77	173
Do. (sands)	—	525	18.19	200
Hartley District total	—	—	12,671.90	52,847

LOVAGUNDI DISTRICT—

Aluvial	—	—	22.49	92
Anglian (Schapke & Quarrie)	5	260	17.62	197
Anzwa B (F. L. Standen)	5	670	58.11	241
Chiringa (Chiringa Synd.) Apr.	5	650	52.42	217
Crescent (Crescent Synd. additional	—	—	—	—
value, Sept., 1916)	—	—	—	11
Dalton (F. H. Dalton)	3	40	27.23	113
Eldorado Banket G.M. Co., Ltd. 20 10P	4,018	1,551.67	6,594	
Do. (sands)	—	4,083	853.96	3,622
Golden Kopje Prop. Mines (slags)	—	—	204.71	833
Maggiemae (J. McMurdon)	2	250	68.37	283
Do. (sands)	—	200	23.81	99
Silverside (Silverside Synd.)	—	—	1.69	7
White Horse (Hinze & Harding)	2	275	55.63	225
Pannings (C. Oswald)	—	—	1.46	6
Logamundi District total	—	—	3,601.93	12,670

MAZOE DISTRICT—

Day Dawn (Day Dawn Tribute)	5	55	21.31	88
Do. (sands)	—	220	21.71	50
Duke of Cornwall (Micky Synd.)	2	413	132.30	548
Iron 1 (J. M. Laing)	5	730	77.44	321
Kimberley (Mash.) G.M. Co., Ltd. 8N 2T	1,900	821.05	3,499	
Do. (sands)	—	1,900	535.22	2,260
Kingsley Hoard (A. S. Warwick)	5	601	10.25	167
Do. (sands) clean up	—	—	2.28	9
Mitre 8 (E. W. L. Noaks)	2	85	65.88	273
Do. (sands)	—	50	23.46	97
Peveril of Peak (G. G. N. Southey)	2	65	16.78	70
Promoter 1 F. C. Croxford	C	2,304	52.79	219
Promoter (B. H. Jones) sands	—	1,700	65.05	270
Rosa (R. Aserman)	2	525	56.02	232
Do. (sands)	—	584	51.37	225
S.D.C. (Insol. Est. H. S. Plant)	—	—	—	—
Plant (April and May)	2H	2,612	102.27	424
Do. (skimmings)	—	61	4.00	17
Shashi 1 Shashi Synd.)	2	61	11.10	47
Vesuvius C. (Cunningham & Allison)	21P	600	158.97	659
Mazoe District total	—	—	2,266.45	9,515

SALISBURY DISTRICT—

Apes (P. Zaffere)	5	260	395.37	1,651
Awce (J. Johnson & Hanley)	3	35	17.02	70
Beatrice (New Beatrice G.M. Co.)	10	995	368.72	1,529
Do. (sands)	—	585	19.94	207
Bauly (W. P. Cape)	2	110	10.31	43
Crossway Luck (W. A. Hooley)	5	241	30.16	125
Found A (Guy's Synd.) Lane Mill	346	79.69	332	
Inviguo (P. Zaffere)	2	128	35.66	148
Jaking (Harrison & Drabble)	5	668	261.99	1,086
Do. (sands)	—	350	61.44	267

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	No. of stamps.	Tons treated.	Yield, ozs.	Value £
Joker (R. L. Mann) sands	—	110	29.13	120
Kenilworth (Kenilworth Synd.)	5	360	19.64	79
Mont d'Or	5	220	73.56	305
Pens Mozzell (Planet-Tribute) (10: 2P)	—	120	22.00	91
Do. (slimes)	—	120	68.00	282
Planet (Planet Tribute Syn.)	10 2P	888	168.08	697
Do. (slimes)	—	888	180.01	718
Do. (re-treated)	—	880	92.00	380
Radnor 1 (Radnor Mines, Ltd.)	5	1,375	402.47	1,668
Shamva Mines, Ltd.	56N 9T	51,484	2,313.50	9,869
Do. (sands)	—	29,691	—	—
Do. (slimes)	—	21,318	6,526.65	27,924
Do. (adjustments)	—	—	—	1,676
Do. (slags)	—	—	63.30	253
Southern Cross (Arab Synd.)	2	94	21.72	90
Do. (sands)	—	156	5.69	24
Trio (Trio Synd.)	5	238	158.77	658

Salisbury District total 11,460.49 50,262

UMTALI DISTRICT—

Bessie (J. Buchanan)	5	1,100	81.38	337
Do. (sands)	—	1,110	182.68	757
Bromley (P. M. Branken) W'fall Mill	127	60	25.61	106
Do. (sands)	—	60	—	—
Do. (slimes)	—	67	19.86	82
Golden Gate (Meikle & Davis) sands	—	2,300	131.97	517
Howat's Luck (A. Howat)	(5)	82	28.06	116
Kent Mines, Ltd.	10	1,485	284.41	1,179
Do. (sands)	—	1,485	75.57	313
Liverpool (R. G. Snodgrass)	5	590	104.15	432
Do. (sands)	—	230	54.79	227
Lucknow (Toronto Synd.) W'fall Mill	—	466	57.74	239
Do. (sands)	—	355	—	—
Do. (slimes)	—	211	150.63	624
Odzi (J. F. Kapnek)	5	740	72.95	302
Rezende Mines, Ltd.	40	5,200	977.80	4,149
Do. (sands)	—	3,524	393.30	1,669
Do. (slimes)	—	1,023	90.35	384
Do. (concentrates)	—	180	422.30	1,792
Redwing (R. P. Synd.)	5	590	86.23	357
Do. (sands)	—	200	15.32	64
Snipe 1 W. (Snipe Synd.)	5	200	16.67	69
Umtali B (Meikle & Davis) W'fall Mill	250	24.22	—	100

Umtali District total 3,295.79 13,815

VICTORIA DISTRICT—

Cabrach (W. R. R. Martin)	5	100	34.72	144
Cambrian (J. & D. Laing)	2	290	167.74	695
Dickens (Dickens Syn.) Apr. sands	—	100	80.40	333
Empress (S. A. Pros. & Con. Sn.)	8	1,225	136.05	564
Do. (sands)	—	775	—	—
Do. (slimes)	—	450	76.06	315
Sunbeam (S. A. Taylor) Apr. sands	—	600	32.71	136
Texas (Victoria Mines, Ltd.) in liquidation	5	363	100.80	418

Victoria District total 628.18 2,605

(P) Grinding Pan; (BM) Ball Mill; (T) Tube Mill; (H) Huntington Mill; (GR) Gates Rolls; (B) Ball Mill; (Pn) Pneumatic Stamp; (N) Nissen Stamp; (C) Chilian Mill; (RP) Roasting Plant.

ASBESTOS

BULAWAYO DISTRICT—	Tons	Value
Birthday (Willoughby's Con. Co. Ltd.)	92.70	£1 18 3 4 0
Birthday (N. Moore, adjustment Mar. 1916, to Jan. 1917)	—	9,780 1 0
Birthday B. W. R. Fromburg Apr	11.25	225 0 0
Do. do. May	17.00	340 0 0
Birthday D. Mrs. U. R. Longhurst	10.00	200 0 0
Do. do. adjustment Feb., Mar. & April, 1917	—	76 0 0
Goosha A (J. Longhurst)	9.00	90 0 0
Nil Desperandum (E. H. Machell)	31.12	622 10 0
Shabanie A (Charterland G.E. and F. Co.)	228.77	3,660 7 4
Sphnix (R. O. Carruthers)	27.30	614 5 0
VICTORIA DISTRICT—		
Balmain (P. T. Hoad)	28.00	420 0 0
Gath's (Victoria (R) Asbestos, Ltd.)	195.23	3,123 14 4
King Asbestos (R.) Ltd.	250.00	4,450 0 0
Regina (P. A. Nightingale)	36.25	550 0 0
Rosey Cross (Mrs. J. C. C. Goddard)	1.00	16 0 0
Rubber (H. Rosenthal)	11.33	107 17 0
	978.95	£25,620 18 8

SUMMARY OF PRODUCTION.

	Value.
Gold, ounces	70,970.92 £299,270
Silver, ounces	18,755.34 3,216
Coal (Wankie Colliery), tons	43,766 10,921
Copper (blister), tons	316.75 61,179
Chrome iron, tons	285.34 189
Asbestos (fibre), tons	987.95 25,621
Wolframite, tons	2.05 360
Ironstone, tons	566.25 71
Diamonds, carats	54.75 188
	£401,015

COMPARISONS.

GOLD OUTPUT—

May, 1917 (31 days)	£299,270
April, 1917 (30 days)	296,977

Increase 2,293

May, 1916	£323,783
May, 1917	299,270

Decrease £24,513

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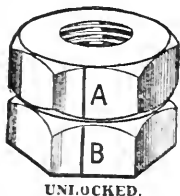
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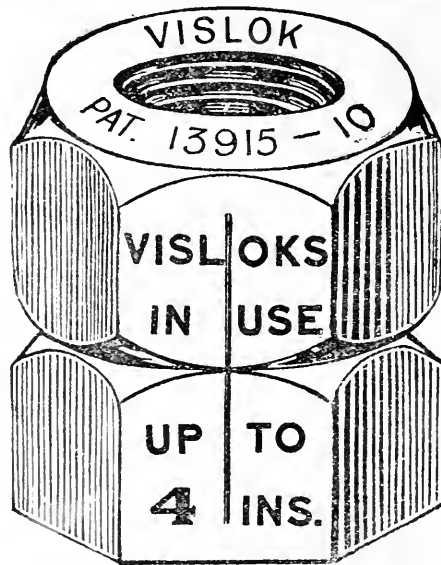
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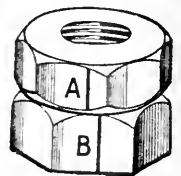


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THE WEEK IN THE MINING MATERIAL AND ENGINEERING TRADES.

Chamber of Commerce Opinion on the Pooling—Progress of the New Scheme—Reef Travellers and the Buyers' Staffs—Galvanised Flat Iron £110—Electrical and Chemical Goods.

THE "pooling" question is still the outstanding feature amongst importers, merchants, and brokers. The Chamber of Commerce had a private meeting amongst their members to consider the position, and after the subject was discussed in all its phases, the consensus of opinion was that it is absolutely a war measure, therefore had to be accepted in good faith. The speech with assurances given by the President of the Chamber of Mines, as a result of instructions through the Union Government from the British Minister of Munitions, was critically examined, but it is reported it was accepted in entire good faith. Since this meeting a very much calmer feeling prevails throughout all commercial circles, assisted very materially by the Russian successes reported during the week.

THE PROGRESS OF THE NEW SCHEME.

The central buying office has been installed, but the plan of operations is in its initial stages, as it will take some time to collect the stock returns for the various mines. It is said that the most essential stores will be taken in hand first, the returns from such being thoroughly dissected and abstracted before a real attempt is made to bring the scheme into operation. After that is done the lesser requirements of the mines will follow on as a matter of course. During the intervals, the separate mines will give their orders on the Commercial Exchange much as usual. Hence a large number of orders appeared on the buyers' list during the present week, but the items were of the most meagre description, as a decent sized order was the exception. It appears that at present only the gold, diamond, and coal mines are in the pool; therefore, the tin, copper, and other base metal mines will have to forage for themselves. This

factor in the situation is an encouragement to the merchants who are not overburdened with stocks; therefore, it may enable them to run along and cover their current establishment charges with their outside orders, which is almost all that can be hoped for during the next few months.

In addition to the pooling of the mines, arrangements have been made by two out of the three South African dynamite factories with the Chamber of Mines to work on a commission basis. It is almost certain that the other factory will fall into line.

AN ANSWER TO OBJECTORS.

If anyone wished to cavil at the new arrangements in obtaining goods from overseas, they can be well answered by the notice issued by the New Modderfontein Company. It states, amongst other things, that there appears to be no doubt that the reduction plant will be ready at the end of the year. This, however, cannot be brought into use until the winder plant is ready, but on account of the uncertainty of continuity of the work, coupled with possible delays in shipment and marine loss, the directors cannot state with any certainty when the new winder plant will be ready.

REEF TRAVELLERS, BUYERS' STAFFS, ETC.

In an interview with a Reef traveller, it was gathered that he was much concerned as to his future, as he is afraid that when the central buying office is in full swing he will have to depend upon the sale of a few local manufactures,

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such as fuse sticks and other small things. He has a vivid remembrance how the establishment of the Commercial Exchange reduced his income by half, and now he is afraid that the present "cut" will do away with another slice of his precarious income. So much is he impressed by this view that he has put in an application for a permanent berth, for although the travellers may not be seriously affected during the present month or so, yet the outlook was anything but promising for the upkeep of a wife and family. As regards the buyers, one is arranging to go into business, but generally the staffs are being absorbed in the central office and in other ways. However, it must be remembered that they were all working short-handed, therefore the disturbing element has been reduced to a minimum.

OIL AND COLOUR BUSINESS.

A merchant states that unless the embargo on linseed oil and white lead is removed by the British Government, the position here will be serious during the next few months. He further stated that linseed oil and its by-products were classed under the head of cattle foodstuffs, which may be a hindrance to the embargo being lifted. The same party was complaining that the Priority Committee are turning down applications for goods to be imported, wholesale. However, in fairness to that committee, the result of a casual inspection of the refusals showed that there was much to be said on their side, as an application was made for empty tin packages to be imported from Birmingham. Now, seeing we make all our tins for containing coffee and tobacco in this country, it is safe to assume that by a little ingenuity other tins could also be made here, and so save space on the ships for something more essential. Little incidents like this prove that every importer does not yet thoroughly realise the conditions in Europe.

SHORTAGE OF GALVANISED IRON CAUSING UNEMPLOYMENT.

A ton of flat galvanised iron was delivered on July 1st at a cost of £100, but now the price is from £105 to £110 per ton. This high price, with future supplies very problematical to obtain, is adversely affecting the plumbing trade, as one shop alone dispensed with three men last week. However, there is a little work available in connection with the municipal drainage at Jeppestown, where the private houses are being connected up with the water-borne sewerage system. It is said that there is still a little money of the special vote left, and it may be that the La Rochelle drainage will be taken in hand shortly. The cost of the connections at Jeppes is ranging between £30 and £40 each, which is only about £5 in advance of the pre-war days. The mines are not giving out any plumbing work unless for jobs which cannot stand over; hitherto there were always some orders going for air pipes and such like things.

CHEMICALS.

So far as can be ascertained, the supply of mercury, except a little for retail purposes, has been entirely absorbed, and it is very questionable if half-a-dozen bottles could be obtained in town at any price. In the majority of cases chemicals have not advanced appreciably in price since Christmas, the rise, as a rule, being chiefly owing to the increased freight and insurance charges. Japan is coming more and more to the front in supplying South Africa with chemicals and glassware, much of which are excellent, and will replace the supplies that formerly came from Central Europe. On the whole, stocks of chemicals are more plentiful than any other branch of mining requirements, and, what is more, supplies are coming forward

freely, which is in a measure explained by the fact that big values are packed in a small freight space. America is also manufacturing mine chemicals for our particular market; therefore, with the help of Japan, supplies should be more than kept up. It is reported that the Transvaal is supplying Japan with many tons of carbonate of soda, most of which is eventually returned as the manufactured article.

ELECTRICAL GOODS.

The shortage of household filament lamps is getting into the acute stage, as the wholesale houses are said to be out of the 50 candle-power globes, therefore many of the shops either have to use 32 or 100 candle-power. The price has advanced from 6s. to 9s. per dozen for all lamps. There is a demand for small electric meters, as property owners are being compelled to protect themselves against the unfair consumption for radiators, electric kettles, irons, etc. In one instance, a block of rooms in the less fashionable part of the town, under a Kafir caretaker, used over £20 worth of current last month, as compared with an average of £6. This extra could only be accounted for by the use of radiators and other warming apparatus, as a set-off against the cold weather experienced of late. The Municipal Supply Branch has given notice that owing to there being no suitable cable, due to circumstances arising out of the war, the Town Council is unable to entertain new applications for electric supply in Johannesburg and 26 suburban townships.

SECOND-HAND MATERIAL.

It is harder to get decent second-hand material than to sell it, was the remark of a big dealer. However, there was plenty of rubbish, he continued, because the various yards had been sorted and re-sorted so many times without replenishment. Trade is very quiet indeed, chiefly through lack of material. Prices for good average lines are: Deals 11d., flooring 5d., ceilings 3d., galvanised iron 1s. foot, flat ditto 7s. sheet, wire netting three feet in coils of 50 yards 27s. 6d., ditto six feet 50s. Second-hand doors, 16s. each; large windows, 25s. Electrical black tubing, not suitable for town work, from 2d. to 2½d. per foot. The farmers buy this, as it will convey water providing there is not too much pressure. The demand for the Reef is exceptionally quiet, but the Natal coalfield buyers have purchased quite freely during the week of odds and ends, spares, etc.

VARIOUS TRADE ITEMS.

Late telegrams state that linseed oil is quoted at 9s. per gallon, in barrels, at the coast, as compared with 1s. 3d. before the war. South African crude oxide of the best colour seems to be going out of our market. Prices throughout our standard list keep much the same, awaiting events. On

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the best of authority, it can be stated that the shipping stringency is likely to be more intense during the next two months, when relief may be expected from the output of new ships. The timber position is much the same, although Oregon pine is not coming forward so freely of late, though it is said that some of the shipping has been diverted to the Atlantic route for foodstuffs. Litharge is being locally manufactured. It may be that an attempt at white lead making will be made here shortly. Bromides and iodides samples from Japan were recently shown by a traveller from there.

REVISED PRICE LIST.

Iron, imported, $\frac{1}{2}$ round, 40s. to 50s.; $\frac{1}{2}$ up to 1 in., 37s. 6d. to 50s.; 2 in. to 6 in., 30s. per 100 lbs. Ditto, square, $\frac{1}{2}$ up to 1 in., 30s. to 45s.; $1\frac{1}{2}$ in. to 2 $\frac{1}{2}$ in., 25s. to 30s.; 2 $\frac{1}{2}$ in. to 5 in., 25s. Flats, 3-16 in., 40s.; all from $\frac{1}{2}$ in. up, 50s. Angles, $\frac{1}{2}$ in. to 3-16 in., 37s. 6d. to 40s., all sizes; $\frac{1}{2}$ in., 37s. 6d.; 5-16 in. to $\frac{3}{4}$ in., 35s., excepting 5 x 4 x $\frac{3}{4}$ in.; mild steel bar, 5 $\frac{1}{2}$ d. lb.; drill, 7 $\frac{1}{2}$ d. lb.; steel plates, 10 ft. by 4 ft. by 1-16 in., 50s.; $\frac{1}{2}$ in. by 3-16 in., 50s.; $\frac{1}{2}$ in. to 5-16 in., 40s. to 50s.; $\frac{3}{4}$ in., up to 40s.; 10 ft. by 5 ft. by 1-16 in., 45s.; $\frac{1}{2}$ in. and 3-16 in., 42s. 6d. to 45s.; $\frac{1}{2}$ in. to 5-16 in., 37s. 6d. to 42s. 6d.; $\frac{3}{4}$ in., up to 35s.; intermediate sizes up to 12 ft. by 6 ft. by 1-16 in., 42s.; $\frac{1}{2}$ in. and 3-16th in., 34s. 6d.; $\frac{1}{2}$ in. and 5-16th in., 33s.; $\frac{3}{4}$ in. and up, 32s., all at per 100lb.; hexagon and cuphead bolts, $\frac{1}{2}$ in. dia., 1s. 9d. lb.; 5-16in. dia., 1s. 6d. lb.; $\frac{3}{4}$ in. dia. up to 3in. long, 1s. lb.; $\frac{1}{2}$ in. dia., 11d.; 3 $\frac{1}{2}$ in. and up long, 11d. lb.; $\frac{1}{2}$ in. dia. up to 2 $\frac{1}{2}$ in. long, 62s. 6d. 100 lbs.; $\frac{1}{2}$ in. dia. and 2 $\frac{1}{2}$ in. up long, 60s. 100lbs.; $\frac{3}{4}$ in. dia. up to 2 $\frac{1}{2}$ in. long, 55s. 100 lbs.; $\frac{1}{2}$ in. dia. 2 $\frac{1}{2}$ in. and up incg, 52s. 6d. 100 lbs.; $\frac{1}{2}$ in. dia. up to 2 $\frac{1}{2}$ in. long, 52s. 6d. 100 lbs.; $\frac{3}{4}$ in. dia. 2 $\frac{1}{2}$ in. and up long, 50s. 100 lbs.; $\frac{1}{2}$ in. and 1in. dia., same price as $\frac{1}{2}$ in. diameter; nuts, $\frac{1}{2}$ in., 1s. 3d. lb.; $\frac{1}{2}$ in., 65s.; $\frac{3}{4}$ in., to 1 $\frac{1}{2}$ in., 62s. 6d.; 1 $\frac{3}{4}$ in. and 1 $\frac{1}{2}$ in., 70s.; 1 $\frac{1}{2}$ in. to 1 $\frac{3}{4}$ in., 75s.; 2in. up, 85s.; washers, all sizes, 45s.; rivets, 3-16in., 1s. 6d. lb.; $\frac{1}{2}$ in., 5-16in., 1s. 3d. lb.; 7-16in., $\frac{1}{2}$ in., 9 $\frac{1}{2}$ d. lb.; $\frac{1}{2}$ in., 52s. 6d.; $\frac{3}{4}$ in., 50s.; $\frac{1}{2}$ in. up, 49s. 100 lbs.; shoes and dies, 32s. 6d. to 35s. per 100 lbs.; rails, £23 per ton; picks, 4lbs., 27s. per doz.; shovels, 32s. 6d. to 55s. per dozen; drill hammers, 5 $\frac{1}{2}$ d. to 6d. per lb.; hammer handles (best American), 14 in., 3s. 6d., 24 in., 7s., 30 in., 9s. 6d., 36 in., 13s., per dozen; metal, anti-friction, 1s. per lb.; galvanised iron, 24 gauge, 6 ft. to 10 ft., 1s. 9d., 11 ft. 1s. 9d., 12 ft. 1s. 9d.; 26 gauge, 6 ft. to 8 ft. 1s. 6d., 9 ft. and 10 ft. 1s. 6d.; flat galvanised, 18 to 24 gauge, 105s.; 26 gauge, 95s. 100 lbs.; floor brads, 40s.; ceiling, 42s. 6d.; wire nails, 40s. to 55s. per 100 lbs.; solder, 50 per cent., 2s. per lb.; locks, rim, 60s.; mortice, 70s. per dozen; barbed wire, 45s. per 100 lb. coil.

Timber: Deals, Baltic, 9 x 3, short and medium, 1s. 3d.; longer lengths, 1s. 3 $\frac{1}{2}$ d. (Oregon, 1s. 1d.); flooring, 4 $\frac{1}{2}$ x $\frac{3}{4}$ and 6 x $\frac{3}{4}$, 7 $\frac{3}{4}$ d. to 8d. per sq. ft.; do., 4 $\frac{1}{2}$ x 1 $\frac{1}{2}$, 9 $\frac{1}{2}$ d.; and 6 x 1 $\frac{1}{2}$, 9 $\frac{1}{2}$ d.; ceilings, 6 x $\frac{1}{2}$, 4d. to 4 $\frac{1}{2}$ d. per sq. ft.; pitch pine, 8s. 6d. per cub. ft.; Oregon, 6s. 3d. to 6s. 6d. per cub. ft.; clear pine, $\frac{1}{2}$ in. x 12 in., 9d. per ft.; 1in. x

12in., 10d. to 1s.; teak, 15s. 6d. per cub. ft.; jarrah, 9s. 6d. per cub. ft.; poplar, 1in. x 12in., 11 $\frac{1}{2}$ d.; scantling, 1s. 2 $\frac{1}{2}$ d. to 1s. 3 $\frac{1}{2}$ d. per ft., 3 x 9.

Bricks, cement, lime, etc.: Pretoria Portland Cement, 9s. 3d. per bag; 8s. 3d. truck loads; lime, white, unslaked, 7s.; truck loads, 6s.; slaked, do., 5s.; blue, 3s.; plaster lime, 4s.; bricks, stock, delivered, 37s. 6d. to 45s.; wire cuts, 50s. to 70s., pressed 70s. to 80s. per 1,000, road transport difficult to obtain; salt and white glazed bricks, £27 10s. per 1,000; roofing tiles £25 per 1,000; Roman do., £12 $\frac{1}{2}$; glazed tiles, 10s. 6d. to 17s. 6d. per yard; paving cement tiles, 8s. 6d. per yard laid; reinforced concrete columns, 6 ft. plain, 22s. 6d., fluted, 24s.; fireclay bricks, £7 $\frac{1}{2}$ to £9 $\frac{1}{2}$ at kiln, per 1,000; clay chimney pots, 36s. to 70s., according to height, 12 in. to 18 in. per doz.; fire clay, 37s. 6d. per ton on rail.

Oils, paints, lead, oxides, glass: Linseed, raw and boiled, 40s. per five gallons; white lead, 85s. to 95s. per 100 lbs. (big lots are not quoted); turpentine, 54s. 2/4 gallons; 10/1, 59s. 6d.; oxide in oil, 36s. per 100 lbs.; dry oxide, 22s. 6d. to 27s. 6d.; linseed oil putty, 4s. 9d. per 12 $\frac{1}{2}$ lbs.; bladders, 36s. casks of 100 lbs.; grease, A.F. axle, 26s. 6d. to 28s. 6d. per 100 lbs.; tallow, 1s. per lb.; White Rose paraffin, 18s. 3d. 2/5; Laurel do., 18s.; petrol, 29s. 6d. 2/4; motor oil, 7s. to 7s. 9d. per gall.; engine lubricating oils, 27s. to 40s. per case; cylinder, 26s. 6d. to 42s. 6d.; paints in tins, 1s. per lb. British plate-glass, $\frac{1}{4}$ in., 3s. 9d.; do., mirror, 4s. 6d.; window, 16 oz., 1s. to 1s. 3d. foot.

Chemicals: Mercury, £50 per 75 lb. bottle last sale, but now no definite price; bichromate potash, 5s. 6d. lb.; chlorate, 4s. 6d. per lb.; permanganate, 14s. per lb.; alum, 5d. lb.; carbolic acid, 7s. 6d. lb.; borax, 92s. 6d. 100 lbs.; cyanide soda, 1s. 5d. lb.; hypo, 7d. lb.; acetate lead, 77s. 6d. 100 lbs.; litharge (assay), 72s. 6d., (commercial) 58s. 6d. 100 lbs.; zinc sheets and blocks, 1s. 6d. lb.; plumbago crucibles, 5d. per number.

Electrical Goods: Lamps, high volts., British, Holland, and American, 30s. wholesale, and 54s. dozen retail; carbon lamps, 10s. 6d. dozen; pure rubber flex, 6d. to 8d. per yard; 3 20 coils of wire, 30s. to 33s.; do., 3 22, 23s. 6d.; tubing, 18s. to 20s. 100 ft.; keyholders, 6s. to 7s. 6d. each; round blocks, 3 $\frac{1}{2}$ in., 3s. 6d. doz.; lamp holder cord grips, 13s. 6d. to 15s. per dozen; switches, 5 amp., 24s. to 30s. doz.; British glass shades, 30s. to 40s. dozen; porcelain shackles, 15s. to 18s. dozen; do., bobbins, 12s. 6d. to 14s. per 100; cleats, 20s. per 100; P.O. insulators, 18s.; motor, 3 h.p., about £35 to £37, new.

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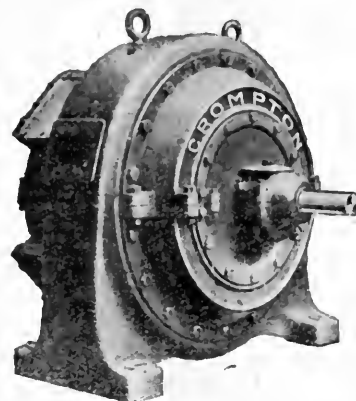
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Engineering Notes and News.

WHAT PEACE MEANS TO THE STEEL TRADE.

By S. A. BENNER*

When the great war broke out in 1914, its first effect on the iron industry of the United States was very depressing. As the months went by, however, two facts of prime importance became manifest: First, that modern warfare requires immense quantities of iron and steel, as well as other metals and supplies; and, second, that a wall had been placed around the iron industries of Belgium, north-eastern France, Germany (including Luxemburg) and Austria-Hungary, which prevented competition from these countries in the markets of the world. Great Britain soon discovered the paramount necessity for iron and steel in modern warfare, and rapidly withdrew such products from international trade. Russia, France and Italy speedily became heavy buyers since they needed much more tonnage than they could make themselves. Last year the United States, in meeting the necessities of the Allies for war materials and for civilian consumption, in addition to filling ordinary export requirements and the vastly increased domestic demand, produced the greatest quantity of steel in the history of the country. This was about 41,000,000 gross tons of ingots, including steel castings, against 32,000,000 tons in 1915, 24,000,000 tons in 1914, and 31,000,000 tons each in 1913 and 1912. Of the 1916 output, at least one-fourth, or over 10,000,000 gross tons, was made for exporting in some form or other. Shell rounds and shell blooms alone constituted a heavy item, requiring probably 3,500,000 gross tons of ingots. Ship building took a very heavy tonnage for ships sold abroad. The extent of our foreign business in steel last year indeed is a matter for congratulation, especially when it is remembered that prior to the war the United States seldom used over 4,500,000 gross tons of ingots per annum in its outside trade. Prices have soared to fabulous heights, particularly for export, and while 1917 bids fair to be a duplicate of 1916, we must recognise the fact that such favourable conditions will not continue for long. It will be my endeavour in this article to analyse the situation that will confront us during the next few years, when the present tremendous consumption of iron and steel for war purposes is over. At the present stage of the evolution of industry throughout the world, the making of iron in its various forms largely is concentrated on the shores of the north Atlantic ocean, due to the presence there of extensive areas of coal with iron and limestone in close proximity. These two great districts, the American, extending from Milwaukee and St. Louis on the west to New York and Baltimore on the east, and the European, extending from Great Britain on the west to southern Russia on the east, produce a very large percentage of all the iron made in the world, certainly this is not less than 90 per cent. These districts not only manufacture iron in all its forms for home consumption, but also for shipment to the great non-producing markets, Latin America, Asia, Africa and Australia. Ever since the United States began in the last decade of the nineteenth century to engage in overseas trade in various forms of iron, the only competition for the non-producing markets in a broad sense has been between these two great districts. For a quarter of a century prior to the war, neither district shipped much to the other, the exchanges being negligible in proportion to the outputs. Since 1900, the tonnages sent overseas to the non-producing countries from the United States have steadily increased. For some years past they have constituted a perceptible market factor. It is a well-known fact that prior to the war the extent of the demand from the non-producing markets made the difference between good times and bad times to the iron trade of Europe. This was not so markedly the case with the United States. Still our overseas trade when fair has helped to make good times for us. The extraordinary demand for iron and steel upon the United States from abroad became insistent early in 1915. It was so great that when it was added to the resumed domestic demand, it compelled the building of much additional steelmaking capacity. The immense requirements from military and naval sources compelled additions also in the countries of the Allies and in some of the neutral states. From information carefully collected, the new "capacities" in gross tons of ingots per annum, have been built since the beginning of the war, or July 1, 1914, or will be completed by January 1, 1918. The term "capacities" is taken to mean the possible outputs when the controlling factors are all favourable, such as full order books, plentiful railway equipment, absence of labour troubles, etc. Throughout this article the term ingot will include steel castings. When the Central Empires had taken possession of Belgium, Luxemburg and north-eastern France, and later on of Russian Poland, thus adding the iron and steel industries of these countries to those of Germany and Austria-Hungary, they controlled a total ingot capacity of 29,000,000 gross tons per annum. Prior to the war a large percentage of this tonnage was used for export into the non-producing markets. The Central Empires having been eliminated from international trade, and requiring the steel for their own use, this large percentage became available for military purposes. Moreover, the war stopped ordinary construction work. In consequence, there have been no increases of moment in the areas now dominated by the Central Empires. Of the 11,000,000 gross tons per annum of new capacity in the United States, but little

is located outside the great American district extending from Milwaukee and St. Louis on the west to New York and Baltimore on the east. This district accordingly is relatively more important than ever.

On January 1, 1918, the United States will possess a capacity of 48,000,000, Canada, 2,100,000, Italy 1,700,000, Russia (area before the war) 6,000,000, British Isles 11,000,000, Spain 600,000, Sweden 900,000, Japan 600,000, and France (area before the war) 5,550,000 gross tons of steel per annum. All the figures of capacity given are quite conservative, and their sum is 101,850,000 gross tons. For the first time in history, during the latter part of the present year, the world's yearly ingot capacity will reach 100,000,000 gross tons. The figures disclose the following interesting facts:

1. In three and one-half years the world's yearly capacity in gross tons will increase from 85,000,000 to 102,000,000, or by 17,000,000, or by 20 per cent.
2. In three and one-half years the United States' yearly capacity in gross tons will increase from 37,000,000 to 48,000,000, or by 11,000,000, or by 30 per cent.
3. Prior to July 1, 1914, the United States controlled 44 per cent. of the world's capacity; after January 1, 1918, it will control 47 per cent.
4. Of the new capacity the United States will have almost two-thirds.

Another highly significant fact in the present situation is the enormous direct consumption of steel for war purposes. When this consumption, literally by millions of tons, in the form of shells, ordnance, war ships, motor cars, railway materials, etc., is considered, it may not be out of the way to estimate that 25 to 30 per cent. of the world's total capacity now is being devoted to war purposes. This consumption is the primary cause of the present remarkable conditions. It is requiring a much larger percentage of Europe's steel-making capacity than of ours. Without it the increases in capacity would have been built gradually and not suddenly. When the war is over, the iron trade everywhere must reckon with these increases. To summarise, the great European district, after January 1, 1918, will control a total ingot capacity of over 50,000,000 gross tons per annum. If the Allies are able to push back the present eastern and western war lines, some of this capacity may be temporarily wrecked. In comparison, the United States after January 1, 1918, will have 48,000,000 gross tons per annum of ingot capacity well located for overseas international commerce, as not over 3,000,000 of the country's 48,000,000 tons capacity are disadvantageously located for this trade. Prior to the war, the great American and European districts were able to deliver iron and steel products to their respective seaboard at about the same cost per ton. The American producer overcame his higher labour rates by a more elaborate mechanical plant equipment, which increased the output per man, and his longer railroad hauls by much larger freight car units, thus reducing the per ton mile freight costs. After the war our capacity for ship building will be three or four times what it was before the war. The application of American methods to ship building, especially the standardisation of the boats, and the speed of the manufacture, under our new conditions of large outputs, will undoubtedly enable us to produce boats at costs comparing fairly well with those elsewhere. As a whole, the outlook for

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* Extracts from a Paper issued by the American Steel Export Co.

our merchant marine is better than it has been since before the Civil War. The peculiar conditions now confronting us, both political and industrial, caused by the war, are bringing all sections of the country to a correct realisation of the importance of a great merchant marine operating under the American flag, and the outlook is hopeful for an amelioration of our present harsh marine laws. Offsetting our lack of a great merchant marine, a factor considerably in our favour will be the increased cost of all manufacture in Europe. This will be due to the much higher taxation that will be required to take care of the immense government loans caused by the war, the much higher rates of interest that will be caused by the scarcity of money, and the much higher level of labour rates that will undoubtedly prevail. On the face of it, everything in Europe after the war will cost much more than before the war. Great Britain now is collecting a primary income tax of 25 per cent. of the net profits of all business. If this high rate of taxation continues after the war, as is very likely, a British steel plant, for example, that netted on an average before the war a profit of 10 dollars per gross tons on its ingot production, which would be a conservative estimate, must pay an income tax of 2.50 dollars per gross ton of ingots. Looking at the situation broadly, the great European district will probably find its ingot cost increased by 3 dollars or more per gross ton. This increased cost will tend to make the great European district not so formidable a competitor in the non-producing markets as formerly. Due to our unique position, the United States is the only country that has been able to resume normal repair and extension construction. By the end of 1917 we will have had over two years of such work. All other countries, including the non-producing markets, are behind by several years with their repair and extension programmes. To make up for lost time, we may expect an era of constructive activity after the declaration of peace, not only in Europe, but also in the non-producing markets. Iron and steel will be required, furthermore,

to replenish stocks throughout the world, which to-day are practically non-existent. When peace comes, bringing with it a cessation of the present enormous demand for steel for war purposes, prices will recede toward the normal and we may then expect the following:

1. Some demand from Europe itself for quick reconstruction purposes. This demand will not be proportionately great, nor for long.
2. Further constructive work in the United States.
3. Replenishment of stocks everywhere.
4. Abnormal constructive activity in Europe, and the non-producing markets, to make up for lost time.

Obviously, one of the important problems now before the iron and steel trade of the United States is to perfect instrumentalities for getting and holding a very large share of the overseas non-producing markets. We began to export steel overseas in the late nineties. In general our policy has been aggressive only at times. Usually we simply have met competition from Europe. In consequence, our share of this business was comparatively modest. We shall probably find it necessary to change our tactics altogether, we setting the price that Europe must meet instead of Europe setting the prices that we must meet. Our own country was able to consume a very large proportion of our output, but with the 39 per cent. increase in capacity that we shall have in 1918 as compared to 1914, the situation seems quite different. Our banking interests will help greatly in handling this foreign trade, as they are now providing financial branches in many of the non-producing countries. The details of export cannot be handled to advantage in the interior, but only at seaboard. For that reason practically all the successful export trade from the United States is managed in New York City. The many problems of international finance and transportation can be solved there better than elsewhere.

New Patents.

254. Stanley Nettleton.—Improvements in the troughs of shaking chute conveyors.
255. Ralph Hash.—Ralph Hash's automatic adjustable door for reef disc sample pulverizers.
256. George Pottinger Roberts.—The Bantjes candle carrier.
257. John Penhale.—Improvements in alcoholic fuels for internal combustion engines.
258. Harry Hancock.—Improvements of parts of cooking stoves, ranges and the like.
259. Charles Alexander Spiers.—An improved screw extractor.
260. Alexander Charles Letchford.—A cold water distemper.
261. Arthur Cyrus Whitmore.—Improvements in purifying air.
262. Harry Thomas Marston.—Parallel ruler for blackboards and the like.
263. John Penhale and William Henry Treloar.—An improved method of treatment for the recovery of gold and antimony from auriferous and antimonial sulphide ores.
264. Walter Dufton.—Dufton's improved automatic coupling and divided buffer.
255. John Hugo Arvidson.—Arvidson's dam-scraper and land leveller.
266. James Hamilton and James Henry Stuthridge.—Improvements in compressed air producing apparatus.
267. Alexander Forbes-Irvine Forbes.—Improvements in aeroplanes.
268. Dora Routledge.—An improved torch for lighting fires and the like.
269. Johan Wilhelm Theodor Olan.—Improvements in mariner's compass and improvements in and relating to magnetic compasses.
270. Hans Andreas Andersen.—Improvements in mechanically propelled road vehicles.
271. Robert Abbie Gillies and William Gillies.—Improvements in and relating to pivot hinges for window sashes.

Durban Roodepoort G.M. Co., Ltd.

(REGISTERED IN ENGLAND.)

NOTICE IS HEREBY GIVEN that an Eighty-sixth (86) Interim Dividend of Five per cent. (5 p.c.), equal to 1s. (One Shilling) per share, has been declared payable on and after the 7th (Seventh) July, 1917.

Holders of Shares to Bearer should present Coupon No. 86 for payment of the above 1/- (One Shilling) per share at the Standard Bank of South Africa, Ltd., Johannesburg Branch, on and after the 7th July, 1917.

W. A. MARTIN,
W. MacFARLANE,
L. CLARENCE,
G. S. KEMPIS, Local Directors.

Johannesburg, 8th June, 1917.

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Company Meetings.

ROODEPOORT UNITED.

An ordinary general meeting of shareholders of the Roodepoort United Main Reef Gold Mining Company, Limited, was held on June 28 in the board-room, General Mining Buildings, Sir George Aibu presided.

The Chairman said:—Gentlemen,—In addressing you on the occasion of our previous annual meeting, in May, last year, I couched my remarks on the prospects of your company in a distinctly cheerful vein, and in doing so I detailed my reasons at some length. I must at once admit that my anticipations have not been as yet realised, owing to reasons more or less beyond our control—such, for instance, as the continued advance in the cost of every department of mining supplies, and the inadequate supply of native labour which we have experienced without intermission since about the middle of 1916. For some years past the mine has shown only a narrow margin of revenue over expenditure, and although undoubtedly the developments in the main section of the property—the Kimberley Main Shaft—during the past year and a half have disclosed appreciably higher values than previously, only a very small percentage of this better grade ore has up to the present been available for milling (for reasons which I will give later in my speech), and the favourable effect which this percentage would have had in normal times has been largely nullified by the increased scale of working expenditure consequent on the war. This aspect is to some extent evidenced by a comparison of the results obtained for the past financial year with those for 1915. The profit and loss account before us shows an average recovery for the year 1916 of 19s. 11½d. per ton milled, or an improvement of about 1s. 10½d. per ton over recovery for the previous year. On the other hand, the working costs for 1916 of 17s. 9½d. per ton reflect an increase over 1915 of approximately 7½d. per ton. The working profit for the past year as a whole was 2s. 1d. per ton, but during the last half of the year, when the adverse factors of shortage of labour and increased cost of mining supplies were being more severely felt, the working profit averaged only 1s. 7d. per ton. For the five completed months of the current year, during which the grade of the ore milled has improved, the effect of the decreased native labour supply and higher cost of stores is still more pronounced, the working costs have risen by an additional 10d. per ton to an average figure of 18s. 8d.—equivalent to an increase of 1s. 9d. per ton as compared with pre-war conditions. Notwithstanding the difficulties which I have just described, the operations for the past year showed a welcome improvement on those obtained in recent years; the gross profit of £49,921 for 1916 is an increase of £78,808 over that for the previous year, and the net profit (i.e., after providing for interest on loans and miners' phthisis compensation) of £23,787 compares very favourably with the net loss of £2,315 for 1915—and, incidentally, represents the best result obtained by your company since 1911.

Development Policy.

Turning to the balance sheet, it will be seen that a net amount of £17,063 has been expended during the year on shaft sinking, buildings, and development in excess of redemption. Stores on hand have been increased by £17,933 to a total value of £31,581, in order to provide against possible delays or restrictions in imports from overseas. On the other side of the account, your company's liability under the head of loans had been reduced, at the date of the balance sheet,

to £295,305, as compared with £312,630 at the end of 1915. Now, as regards the development of the Kimberley Main section, which, as I indicated last year, constitutes, with its 220 intact claims, the main mining section of your property, the development work effected during the past financial year continued to disclose ore of a very satisfactory character, both as regards values and degree of payability. The figures in this connection for 1916, as given in the manager's report, show that on south reef 88.31 per cent. of the development was payable, giving an average value of 9.15 dwts. over an estimated stopping width of 42 inches, and on main reef 36.45 per cent. of the development was payable, with an average value of 6.23 dwts. over 52 inches. Those figures refer to the Kimberley Main section as a whole. The disclosures for the lower levels of the section, i.e., between the 16th and 20th levels, where development work has been largely concentrated, are still more encouraging, as the year's development gave a percentage of payability of 90 per cent., with an average value of 9.8 dwts. over an average width of 44.6 inches. I think it desirable to again emphasise the point I made in my remarks last year, that the area between the 16th and 20th levels is estimated to contain approximately 1,250,000 tons of ore, and to supplement those remarks by stating that at the present time 47 per cent. of the total footage required to develop this ground has already been effected, and that the average value disclosed by that footage is 8.3 dwts. over 46 inches. At this stage let me make the opportunity of dispelling misunderstandings and replying to a certain amount of criticism to which I have been subjected by some shareholders since the last annual meeting. These gentlemen, somewhat naturally, ask why, if the developments in the lower levels continue so satisfactory, they have not already been reflected in increased profits from milling operations. Well, gentlemen, the answer is very simple. During the whole of the year 1916 only 42,280 tons of ore were mined from this particular section, or an average of about 3,500 tons per month out of a total of approximately 75,000 tons milled monthly. Is it not obvious that such a small percentage of higher grade ore could not have a very appreciable effect upon the infinitely larger quantity of lower grade rock sent to the mill? And the reason for this comparatively small contribution is, of course, that although, as I have already shown, the lower levels are being opened up as expeditiously as possible, there is such a large quantity of work involved in driving, making connections, cutting stations, and other necessary development work before the blocks in question can be actually attacked for stopping ore, that it is only gradually that increased tonnages from such sources can be brought into service. Naturally, however, each period of a few months should now show an additional quantity of ore contributed from this ground, and if, as there is every reason to expect, the stop values bear out the values disclosed by development, the additional ore of better grade from these levels should be reflected in the grade of the ore milled as a whole. I think it only right to again impress upon you that this increase of rock from the lower levels can only be effected by degrees and that, therefore, its influence for some time to come on the value of the ore crushed as a whole must be correspondingly gradual. The real value of the satisfactory manner in which the Kimberley main section is opening up is not so much in its bearing upon present operations as in its steadily proving the payability of the main portion of your company's mining area, and thereby assuring its future prospects. Naturally, however, we shall be only too glad to see the practical effect on revenue and profits of an increasing supply to the mill of ore

of better grade, and I certainly hope that this will be manifested to some extent during the present year.

Output Results.

Referring to the output results for the current year, I have already indicated that the improvement in grade shown for the past two months has unfortunately been counteracted almost entirely by the higher scale of working costs now obtaining, which have ruled at about 18s. 8d. per ton. Moreover, the native labour position has become steadily worse since the commencement of this year, and at the present time the force available on the mine is only 2,800, as compared with an average complement of 3,400 during 1916. I cannot too often remind you that an ample labour supply is most essential to a low grade, as it is only by putting out the largest possible tonnage that the heavy standing charges can be advantageously distributed and a substantial profit earned. As an instance of this, the largest tonnage milled in any one month last year was 37,863 tons for March, when a profit of over £6,000 was made on a recovery of 20s. 6d. per ton. I may mention that there is a somewhat peculiar aspect about the native labourers on this mine, in that about 40 per cent. of them are time-expired and voluntary boys, who stay on indefinitely so long as the work on which they are employed suits them. These boys are quite content to work in the easier sections of the property—No. 3, the old United, and the upper levels of the Kimberley Main—but at once apply for their discharges if sent to the lower levels of the Kimberley Main Shaft, where, as I have previously indicated, the higher value rock is found. It follows, therefore, that only recruited boys still under contract can be placed in the lower levels, and as this class of native always contains a large percentage of comparatively inexperienced workers, the result is that in the higher grade stopes, where good efficiency is required in order to obtain full advantage of the better values, the standard of work is poor, whereas the lower grade and easier stopes, which are more suitable to beginners, are occupied by the most experienced boys. This is a state of affairs which, of course, can only be remedied when native labour is plentiful.

My attention has been called to a remark made by me at the previous annual meeting of this company, that "I was full of hope that the future of the Roodepoort United would be at least equal to its early days," and I am informed that some shareholders have interpreted this to mean that I looked forward to the present mine yielding a similarly high grade to that of the old United section in former years. In view of the fact that for a matter of about ten years in its earlier history the recovery from the old United ranged from 40s. to 50s. per ton, it is difficult for me to understand how my remark can have been so strangely construed, as this would have meant that I regarded the existing mine as one of the richest propositions on the Rand! What I intended to convey, of course, was that I hoped the future profits of the company would equal those of the old mine in its best days—in other words, that they would rise to a level of from £9,000 to £10,000 per month. And at the time I uttered this expression, I certainly thought I was dealing with a possibility of the comparatively near future. We were then earning from £5,000 to £6,000 per month from ore of a recovery value of just over 20s. per ton, and it did not seem unreasonable to anticipate that, with the gradually increasing grade which would follow on the opening up of the

richer ore continued in the lower levels of the Kimberley Main section, we should subsequently reach the figure of profit I have indicated. Since then, however, we have experienced two most serious of factors to increased profits, in the shape of increased working expenditure and a decreased labour force, which have for the time being made my prediction appear unduly optimistic—especially as the labour factor has also had the effect of delaying the opening up of new and better grade stopes in the ground between the 16th and 20th levels. I do not intend to venture again to-day into the fields of prognostication, but I can fairly ask you to consider this question: If we can make a working profit of $\text{£}200,000$ per month under the existing most difficult conditions of heavy additional war expenditure and inadequate labour, how much better are the prospects when working under more normal conditions and with the added advantage of being able to call on an appreciably larger extent on the higher grade rock which we continue to disclose in the lower levels of the property?

Men on Active Service.

Your company continues to make advances to the dependents of those of its white employees who have gone on active service with the sanction of the management. The total enlistments to date for Overseas and the East African campaign number 91 men, of whom 56 are still away, representing 20 per cent. of our complement. I very much regret to have to announce that, in addition to four men who have been wounded, the following three have lost their lives: Acting Lance-Corpl. William George Hunt, Private James Fraser, and Private Herbert Charles Rand. We tender our sincere sympathy to the relatives of these men. In conclusion, I have much pleasure in expressing on behalf of the board our great appreciation of the services of your energetic manager, Mr. F. W. Girdler-Brown, continues to devote to the interests of the company.

The report and accounts were adopted. Messrs. H. Newhouse and Arthur French were re-elected to the directorate, and Messrs. Ferryman and Goldby and Mr. A. Eckart-Beckmann were reappointed auditors.

NEW STEYN ESTATE.

Sir George Albu presided over the ordinary general meeting of shareholders in the New Steyn Estate Gold Mines, Ltd., held at the General Mining Buildings, on June 29.

The Chairman, in moving the adoption of the reports and accounts, said:—The accounts for the past year reflect very little change from the position at the close of the previous year. The profit and loss account shows the expenditure for 1916 (including licences, etc., $\text{£}2,911$) to have been $\text{£}4,877$, and the revenue from interest, rents, and owner's share of claim licences at $\text{£}3,775$ leaving a net loss for the period of $\text{£}1,011$, which has the effect of correspondingly reducing the credit balance of appropriation account to the figure of $\text{£}33,333$ appearing in the balance sheet. The cash at banker's consequently shows a similar diminution and with these exceptions the balance sheet is practically on all fours with that for 1915. During the year your company was offered—and accepted—a participation of $\text{£}50,000$ on ground floor terms in the tender made by the General Mining and Finance Corporation, Limited, for the lease of the Government ground adjoining the Brakpan Mines, Limited, but I regret to say that the tender was not successful.

The report and accounts were adopted. Messrs. J. Freudenreich and Arthur French, the retiring directors, were re-elected and Messrs. Douglas, Low and Co. were reappointed auditors.

WEST RAND CONSOLIDATED.

An ordinary general meeting of shareholders of the West Rand Consolidated Mines, Ltd., was held on June 28 in the board room, General Mining Buildings. Sir George Albu, who presided, said:—Gentlemen,—The accounts for the past year show that the working profit amounted to $\text{£}85,977$, as compared with $\text{£}95,520$ for the previous year, or a diminution of $\text{£}7,553$. In view of the decrease of $3\frac{1}{2}$ d. per ton in the recovery value of the ore milled and the increase of 6d. per ton in working costs for the year under review, a greater shortfall of profit would appear to be called for, but the influence of these adverse factors was largely counterbalanced by the fact that, as the result of the installation of the two additional tube mills referred to in my remarks at the last annual meeting, it was possible to crush 66,810 tons of ore during 1916 in excess of the tonnage treated in 1915. With the addition of sundry revenue from interest, discount on debentures purchased, and dividends on investments, the gross profit for the year amounted to $\text{£}108,029$. This was appropriated to the extent of $\text{£}22,954$ for interest on debentures, and after providing for Government taxes and miners' phthisis compensation, a net profit of $\text{£}69,517$ was carried to the balance sheet. As I explained, however, last year, these net profits are not available for distribution, inasmuch as they are applied from year to year either in increasing the company's fixed and other illiquid assets, or in the reduction of liabilities in respect of outstanding debentures. For instance, during the past year $\text{£}46,703$ were spent on capital expenditure in the shape of additional shaft sinking, machinery and plant, buildings, and excess development. The stock of stores on hand was augmented by $\text{£}15,859$; and debentures were purchased in the open market to a further amount of $\text{£}79,570$. These three items account for a total expenditure of $\text{£}162,911$, which was provided to the extent of $\text{£}69,517$ by the net profit for 1916, and the balance by a portion of the cash on hand. As will be seen on comparison of the respective balance sheets, the cash on hand (including gold in transit) at the 31st December last had been reduced to $\text{£}111,276$, as against $\text{£}204,149$ at the close of the previous year. In considering these figures, however, regard must be had to the nature of the expenditure incurred. The increase of stores was rendered imperative by reason of the uncertainty and unreliability of regular imports from Overseas. The additions to plant and buildings represent an instalment of the increased treatment capacity of the reduction works which it is subsequently intended to effect; and the purchase of debentures to the nominal value of $\text{£}79,570$ not only covers a portion of the debentures which would otherwise have had to be drawn for redemption in September, 1916, but also the whole of the debentures due for redemption in September, 1917, and September, 1918, as well as $\text{£}10,160$ of the debentures due to be drawn for redemption in September, 1919. In other words, there will be no necessity either this year or next to appropriate for debenture redemption purposes any portion of the profits earned—although, of course if parcels of the company's debentures should be offered in the market during these periods at material discounts, your directors would naturally consider the advisability of making further purchases. Whilst dealing with this subject I may perhaps explain that, apart from any question of the profit accruing to your company in purchasing its debentures at a discount, there is the matter of the saving of interest which is involved. Even in these times of abnormally high rates of interest on fixed deposits with banks and in Treasury bills, it has not hitherto been possible to obtain a return from these sources

of so high a rate as the 6 per cent. per annum which this company's debenture issue bears, and therefore an appreciable proportion of our surplus funds has been invested in buying parcels of the debentures as offered. I may add that the total amount of debentures of the company purchased for redemption up to the present time is $\text{£}135,160$, leaving $\text{£}364,840$ outstanding. Reference is made in your directors' report for the past year to the acquisition of a portion of the mining area of the West Rand Central G.M. Co., lying to the west of the northern portion of your company's main block. This purchase, at a merely nominal price, will allow of the isolated block of 20 claims belonging to your company and situate to the west of the West Rand Central ground, being attacked through certain drives already existing in the workings of the latter company, and which again can be easily connected with the western workings of our main block.

Fall in Native Labour Force.

I will now deal with the results of mining operations for the current year, and with the causes which have led to the disappointing returns for the last few months. You will probably have noticed that the published monthly outputs from January onward do not reflect any material increase per ton in working costs over the corresponding figures during 1916, and that the tonnage milled—with the exception of April—showed no decided reduction. Obviously, therefore, the seriously diminished profits have been due to the only other possible cause, i.e., fall in grade. This is illustrated in the recovery per ton obtained since the commencement of this year, which (as compared with the average recovery of close upon 21s. per ton for 1916) has been as follows:—January, 22s. 6.3d.; February, 22s. 11.9d.; March, 21s. 5.8d.; April, 20s. 2.8d.; May, 19s. 4.6d. And now for the reasons. The root of the whole trouble has been the decrease in the native labour supply, a factor of very considerable influence on a mine such as that of your company, which in the first place is comparatively low-grade, and secondly is one suitable in most sections for hammer stopes only. The native labour force fell gradually but surely from January onward, and as the shortage became more and more pronounced, exceptional measures were taken with the object of maintaining the tonnage necessary to obtain a reasonable margin of revenue over working expenditure. The management was faced with the alternatives of either restricting the available labour almost entirely to hammer stopes (which would have entailed a considerable reduction in tonnage, with the possibility of earning no profit at all), or of keeping up something like normal tonnage by means of placing machines in stopes unsuitable for this method of breaking rock—with the hope that this uneconomical measure would be soon rendered unnecessary by an improvement in the labour position. Unfortunately, however, the native labour supply became worse instead of better. It was also found that the use of machines in hammer stopes had the effect of breaking so much waste rock as to materially reduce their normal recovery value—in some cases to the extent of rendering them unpayable. Furthermore, the introduction of these extra machine drills created too great a demand on the compressor plant, with the result that the air pressure proved inadequate for the machines at work as a whole. Another feature of the abnormal efforts made to keep the mill supplied with ore under the difficult circumstances was that all the broken rock previously accumulated in the stopes throughout the mine was drawn upon in January, February and March, with the consequence that at the end of the last-named month no stock of broken ore remained. It was at this most

difficult and crucial stage that Mr. Erroll Hay took over the management of the mine, and so bad was the position that it was only by the exercise of the greatest energy and hard work that any profit at all was made possible for April. In May, although the native labour position was still more acute, Mr. Hay was able by re-arrangement of the underground work to show improved results, notwithstanding that he had already commenced to accumulate broken ore underground, for banking shoots in the stopes and in order to re-organise shovelling and tramming operations, and in spite of the fact that at that time there were 366 less natives employed underground than in February.

Expected Improvement.

These achievements are, I think, a tribute to the methods of reorganisation which the new management has effected, and a good augury for the future. There is a further matter arising out of the investigations of the last few months which is now in course of being remedied. In some parts of the mine, especially in the instance of the area lying between the 3rd and 6th levels west of the west shaft, it has hitherto been the custom to place the drives at distances of from 400 up to as much as 1,000 feet apart, on the assumption that the reef would have the same characteristics of payability and regularity as in the case of the ground lying above the third level, which was successfully developed in a similar manner. It has recently become apparent, however, that the ground between the 3rd and 6th levels is of a more faulted nature than was anticipated, and that therefore it will have to be further developed by means of intermediate drives, etc., before justifying either the tonnages or values previously placed upon the blocks.

In this respect, therefore, I must frankly state that certain blocks included in the fully developed ore reserves at the 31st of December last would more properly (in view of the knowledge since obtained) be placed in the category of partially developed ore. As I have already stated, however, the position is now being straightened out, and before the close of the current year the additional work required to fully develop the blocks in question will have been effected. Now, gentlemen, I think I have completed the worst part of my interview, and although the position during the last few months has undoubtedly been an anxious and disappointing one, I fully believe that we have already turned the corner. You will, however, appreciate the point that it is much easier to get into a difficult position than to get out of it; therefore we may have to ask you to exercise your patience for some time longer before we shall be able to return to normal conditions of output. Assuming that the native supply gradually improves—as it should do, in the ordinary course, during the next few months—and that our relations with our white employees continue undisturbed, I see no reason whatever why last year's standard of profits should not be regained, and even perhaps exceeded. This object will be assisted by the larger winding and compressor plant which is being installed at the Rand shaft, and the erection of which is nearing completion. The existing winding engine has reached the limit of its capacity as regards both length of wind and tonnage hoisted, and the present compressor plants are taxed to their fullest extent. The tonnage now being hoisted from this shaft is well below the quantity which we are entitled to mine on the basis of the ratio which the battery reef reserves bear to the ore reserves as a whole, and the new plant will therefore enable us to take more ore from this source for the mill by providing additional air pressure for the machine drills and also greater hoisting

facilities. We have been able to purchase the whole of this plant locally which is a distinctly fortunate circumstance, having regard to the impossibility at the present time of importing requirements of this kind from overseas. I may remind you that the ore reserves on battery reef are of a higher average value than main reef, and that consequently the increased quantity of rock which will be available from the Rand shaft should have a favourable effect on the general grade of the ore milled. The new compressor will be running by about the middle of next month, and the new winder should be ready to start up during August. Under these circumstances I am distinctly hopeful that the subsequent months of the current year will show a very decided improvement in the results from mining operations, especially in view of the reef and very material economies in working, and the better methods of organisation, both underground and on the surface, which have been introduced by the new management.

Toll of the War.

Before concluding I wish to refer to the services which your company's employees have rendered, and are continuing to render, in connection with the war. Up to the present time 95 of our white employees have enlisted, of whom 61, equivalent to 18 per cent. of the complement, are still away on active service. Our list of casualties is unfortunately a comparatively heavy one, and I am sure you will join me in wishing a speedy recovery to those who have been wounded, and in expressing sincere sympathy with the relatives of the undermentioned men who have lost their lives:—Staff-Sergeant Sydney Davey Parsons, Private John Harwood, Private James McInnes, Private William Henry Moxley, Private Ernest P. Kinghorn, Private Frederick Slinger, Private David Leslie Wilson.

The report and accounts were adopted. Messrs. Arthur French and J. Friedlander were re-elected to the directorate.

Mr. E. Duckworth and Messrs. Ferryman and Goldby were reappointed auditors.

SACKE ESTATES.

The ordinary general meeting of shareholders in the Sacke Estates and Mining Company, Ltd., was held on June 29 in the board room of the General Mining Buildings, Sir George Albu presiding.

The Chairman, in moving the adoption of the report and accounts, said:—As you will see from the accounts before you, the revenue of your company for the past year amounted to £3,092, and the administration expenditure to £1,115, leaving a gross profit of £1,977. In order to maintain the investments at a book value at or under the Stock Exchange closing prices at the 31st December last, it was necessary to write down certain stocks to a small extent, and the depreciation in this respect debited to profit and loss account was £665, thus reducing the net profit to £1,312. Consequently, the liquid assets (cash and investments) after allowing for liabilities amounted to £66,440 at the end of 1916, as compared with £65,123 at the close of the previous year. Otherwise there is no change to record in the position. During the year your company accepted the offer of a participation, on ground floor terms, of £30,000 in the tender submitted by the General Mining and Finance Corporation, Ltd., for the lease of the Government ground adjoining the Brakpan Mines, Ltd. I regret to say, however, that the tender was not successful.

The report and accounts were adopted.

The retiring directors (Mr. Arthur French and Mr. H. W. Dalton) and auditors (Mr. A. Eckart Beckmann, and Messrs. Douglas, Low and Co.), were re-elected.

CINDERELLA CONSOLIDATED

The ordinary general meeting of the shareholders of the Cinderella Consolidated Gold Mines, Ltd., was held on June 29 in the board-room, General Mining Buildings. Sir George Albu presided.

The Chairman said:—The debit balance of £8,473 on profit and loss account for the past financial year really represents, with the exception of the "expenditure in connection with engineer's report on property" of £1,239, the cost of maintaining your company's property, after crediting sundry revenue received in respect of interest on deposits, etc. If we add the debits to appropriation account in respect of miners' phthisis compensation, English income tax, etc., amounting to £460, the net cost to your company for the year was £8,933. With regard to the financial position, it will be seen from the balance sheet that a payment was made during the year of £14,496 to the East Rand Proprietary Mines, Ltd., being the purchase price of the 16.5 claims previously agreed to be sold to us and referred to in annual reports of your directors for some years past. On the other hand, some non-essential machinery and plant was disposed of for £1,587 and £2,259 was received from the East Rand Proprietary Mines for certain development work on the northern boundary of your mine effected by your company several years ago, for which the East Rand Proprietary Mines had agreed to pay on the ratification of the purchase by us of the 16.5 claims already referred to. Stores to the sale value of £6,054 were also disposed of during the year, and after taking into account the comparatively small increases in sundry debtors and payments in advance, the net result is that the cash balance was reduced, as compared with the amount in hand at the close of 1915, by about £15,000—which, of course, includes the cost of £8,933 for maintenance of your property mentioned in my opening remarks. I may add that owing to our having been able to dispose, since the date of the balance sheet, of further lots of stores to the value of about £2,000, and of other items of non-essential machinery, we have been able to meet the expenses of maintenance for the current six months without further depleting the cash in hand, which therefore at present stands at approximately the same figure as at the 31st December last, i.e., £12,000. Since the date of the report of your directors for the past year, we have entered into an arrangement with the Board of the East Rand Proprietary Mines, Ltd., in terms of which we have agreed to grant that company certain facilities for enabling it to develop and work a block of its ground which lies between the deep and central sections of your company's mining area. This arrangement provides that we will allow the E.R.P.M. the use of the Cinderella main shaft for the purpose of hoisting men and materials, and also to use, for the purpose of entry into and working its block, the six levels of your company which have been driven eastward close up to the boundary of the E.R.P.M. ground. We have also agreed to allow the E.R.P.M. to use, at an agreed monthly rental, the hoiler and compressor plant and the 3-ton electrical hoist installed at the Cinderella main shaft. As consideration for these concessions, the E.R.P.M. has agreed at its own expense to push the development of our third level east (which is already inside the E.R.P.M. ground) to the dip boundary between its block of claims and our central section, and after wards, if we so desire, to continue the drive into our central section at our expense, and to give us any facilities we may require to enable us subsequently to sink winzes to that portion of our

net level which lies on the dip of the E.R.P.M. block. As further consideration, the E.R.P.M. has agreed to grant us an option for several years to purchase at a very reasonable price the area which will lie between the continuation of our third level (through the E.R.P.M. block) and the southern boundary of that block. This area cannot definitely be ascertained until the third level has been driven up to the eastern boundary of our central section, but it will probably be from 13 to 15 claims. The option to your company is of very considerable potential value, inasmuch as, if exercised, it will enable us, when we recommence active operations on our property, to open up a very large tonnage of ore (probably something like half a million tons) with a comparatively small expenditure of time and development work between the northern boundary of the claims and our existing 5th level drive, which, as you may remember, is also the connection drive towards the central section, and had been driven a total length of 4,195 feet in the latter direction at the time the mine was closed down in December, 1913. I may also remind you that this drive exposed very good values, the average for the 2,000 feet driven and sampled on reef being 10 dwts. over 42 inches. I should, perhaps, state that the arrangement with the E.R.P.M. contains provisions which enable us, if and when we so desire, to terminate at short notice any or all of the concessions granted by us, so that we should not be hampered in any way by the agreement in the event of restarting active operations on our property, but this will not affect our option on the claims to which I have previously referred, which will definitely continue for the period fixed.

The report and accounts were adopted.

Mr. Leopold Albu and Mr. Arthur French, the retiring directors, were re-elected, and Messrs. Douglas, Low and Co. were reappointed auditors.

AURORA WEST UNITED.

The ordinary general meeting of the shareholders of the Aurora West United Gold Mining Company, Limited, was held in the boardroom, General Mining Building, on June 29, Sir George Albu presiding.

The Chairman said:—When addressing you at the previous annual meeting of the company held a little over a year ago, I stated there was every indication that the working profits for 1915 would be maintained at about £4,000 per month, or £50,000 for the year. The accounts before you show that my estimate was fully justified by subsequent results, as the working profit for the period mentioned amounted to £52,049. After providing for interest on the advances from the General Mining and Finance Corporation, Limited, profits tax, war levy, and contributions to the miners' phthisis compensation fund, a net profit of £42,499 remained. To this amount may be added the increase during the year to the credit of mine development reserve of £4,125, representing the excess of the charges to working costs during the period in respect of development redemption over the actual cost of development, thus giving a total cash profit of £46,624, which was utilised as follows:—Capital expenditure on shaft sinking and additions to plant and machinery (as described in the manager's report for the year, absorbed £7,503; stores on hand were increased by £12,902, in order to bring them up to a quantity representing six months' supply; and the balance of the net earnings was applied to the reduction of the company's liabilities. In this latter connection you will notice from the balance sheet that the indebtedness of your company to the General Mining and Finance Corporation

was reduced from £80,984, as at the end of 1915, to £43,777 at December 31 last. It will thus be seen that, as in preceding years, the profits earned by the mine have been applied to two purposes, i.e., the purchase of mine equipment and the partial liquidation of the company's liabilities, and were consequently not available for distribution. In these circumstances the same procedure has been followed in the accounts for the past year as on previous occasions, by writing off the net profit against the book value of permanent works, machinery and plant, and buildings. As I pointed out in my speech at the last annual meeting there is no object in building up a large credit to profit and loss account out of profits which have been already utilised in additions to plant and in repaying advances previously made to the company, and which cannot, therefore, be again utilised.

The Year's Mining Operations.

With regard to the actual mining operations for the year, a comparison with those for the previous 12 months shows that there was an addition of approximately 6,400 tons of ore milled, with a slight increase in the recovery value, and an apparent decrease in working costs of about 6d. per ton. It must be borne in mind, however, that as from February, 1916, the charge to working expenditure in respect of development redemption was reduced by an amount equivalent to about 10d. per ton milled, so that the average working costs for comparative purposes really reflect an increase of 4d. per ton milled. On the other hand, the enhanced prices during the year for mining supplies, and the additional expenditure for allowances to employees on active service, war bonus, leave pay, etc., are estimated by the management to have amounted to an aggregate of over 7d. per ton as compared with the previous year, so that on balance the normal working costs may be said to show a diminution of about 3d. per ton. Although this figure seems insignificant, it is really a satisfactory achievement having regard to the existing circumstances, which are undoubtedly difficult, especially in view of the large number of men absent from the Rand on active service and other war work. In the instance of your company, 27 men are at present on active service, representing 20 per cent. of the white employees. I am thankful to say that up to now I have no death to record amongst those of our men who have joined up, but our deep sympathy goes out to Pte. G. Stobie, who is suffering from what I fear will prove to be permanent blindness, but is bearing his affliction with the greatest courage. Dealing with the subject of mine development, the total footage recorded for the past year is 6,590 feet, or roughly 1,000 feet in excess of that accomplished for the previous year. This, however, includes 899 feet of crosscuts, as compared with a corresponding figure of 399 feet for 1915; extra dead-work of this nature, although necessary, does not directly open up additional bodies of ore, and this factor, combined with abnormal faulting met with in the lower levels of the property, largely explains the decrease of some 60,000 tons in the fully and partially developed ore reserves as compared with the end of 1915. Per contra, the existing reserves show a slight increase of .12 of a dw. in value.

Prospects of Dividend.

At the last annual meeting of your company, I ventured to predict that it would enter the list of dividend-payers in the course of this year, provided that normal conditions be maintained in the interval. There are still six months to run before the period covered by my estimate expires, and it may be that I shall be proved to have been over- sanguine. The financial position at the end of last month

was that the net liabilities of the company, i.e., after allowing for cash in hand and gold in transit amounted to about £38,000, as against which we had stores in hand to the value of over £21,000. At the present rate of monthly profits it would therefore take about ten months from the beginning of this month to liquidate the whole of the debt—in other words, until April next. It is possible, however, that if there be no interruption in continuous mining operations, and assuming that the labour position does not change for the worse, arrangements may be made with the General Mining and Finance Corporation which will allow of a dividend being declared at the end of this year, and of the remainder of the debt due to that corporation (which I trust will by then have been reduced very considerably) being carried forward for liquidation in 1918. I would again remind you that the policy which we have maintained of liquidating the whole of the company's liabilities out of profits earned, whilst admittedly delaying the declaration of dividends, has enabled us to limit the issued capital to the exceedingly small figure of £103,352; that after the now remaining debt has been paid off the net profits thenceforward made will be wholly available for distribution to shareholders, and should represent a very satisfactory return on the capital of the company. In conclusion, I have much pleasure in expressing the board's appreciation of the valuable services rendered by your manager, Mr. J. K. Digby.

Thes report and accounts were adopted.

Mr. Leopold Albu and Mr. Arthur French were re-elected directors, and Mr. Harry Ha's and Messrs. Fraser and Mackenzie were reappointed auditors.

RAND COLLIERIES.

The ordinary general meeting of shareholders of the Rand Collieries, Limited, was held on June 29, in the boardroom, General Mining Buildings, Sir George Albu, who presided, said:—Gentlemen, I have again to express my regret that there is little for me to add to the information contained in the report of your directors for the past year. It seems obvious that, in the first place, there can be no possibility of raising funds for your company until after the termination of the war, and, in the light of the experience gained by other companies whose properties are situated on the far East Rand, it would appear that in order to attract fresh working capital it is necessary to hold a larger mining area than that at present possessed by your company, in order to provide an ample margin of insurance against the large percentage of unpayable ground, which is a general characteristic of that district. The draft Mining Leases Bill, which was introduced in the last session of the Union Parliament, and withdrawn owing to pressure of other business, has suffered the same fate in the session now rapidly drawing to a close. This Bill provided for a Mining Leases Board which would sit every three months in order to consider applications for the lease of Government ground, and therefore constituted a means whereby a company such as the Rand Collieries could at any time make proposals for the incorporation of additional ground, with its existing mining area, for the purpose of rendering the combined area a workable proposition in the sense that it would contain the necessary margin for providing for unpayable stretches of reef. It is anticipated that this Bill will be reintroduced in the early part of the next session of the Union Parliament, and that it will subsequently be made law. In the event we shall, of course, consider the possibility at a later date of evolving a financial scheme which would enable us to obtain the necessary funds to justify us in applying for the lease of the Government ground adjoining your property to be worked in conjunction with the latter.

The report and accounts were adopted.

Messrs. Leopold Albu and Arthur French were re-elected to the directorate.

Messrs. Fraser and Mackenzie were reappointed auditors.

Meyer & Charlton Gold Mining Company, Limited.

(Incorporated in the Transvaal.)

Directorate: Sir George Albu, Bart. (Chairman and Managing Director); Leopold Albu, alternate H. W. Dalton; Arthur French. Manager: H. G. Nitch. Secretary and Head Office: J. V. Blinkhorn, General Mining Buildings (P.O. Box 1173), Johannesburg. London Committee: P. G. Hamilton Carvill, J.

Freudenthal, F. W. Chambers. London Secretary and Office: T. Frederick Thorne, 63/4 Winchester House, Old Broad Street, E.C.2. Paris Agents and Office: General Mining and Finance Corporation, Ltd., 29 Rue Taitbout, Paris.

REPORT OF THE DIRECTORS

For the Year ended 31st December, 1916.

Submitted to the Shareholders at the Ordinary General Meeting, held on Thursday, the 28th day of June, 1917, at 11 o'clock in the forenoon, in the Board Room, General Mining Buildings, Johannesburg.

To the Shareholders,

MEYER & CHARLTON G.M. CO., LTD.

Gentlemen,—

Your Directors beg to submit their Report on the affairs of the Company for the year ended 31st December, 1916, together with the Balance Sheet, Profit and Loss and Appropriation Accounts at that date. These are accompanied by the Reports of the Auditors and the Manager.

CAPITAL.

The Capital remains unaltered at £200,000, in shares of £1 each, all issued and fully paid up.

PROPERTY.

The property of the Company consists of the following:—

	Claims.
Ground held under freehold as well as mynpacht and claim licence covers an area equivalent to 80,7784 claims, of which 4,4276 claims are north of the outcrop, and the reef claims are	76.3508
The undermining rights of certain Bewaarplaatsen, Water-rights, etc., acquired from the Government (the consideration payable to the Government being 10.8668 per cent. of the annual nett produce of the Company), equivalent to a claim area of	13.7129
	Claims ... 90.0637

The surface rights of the following Bewaarplaatsen and Water-rights:—

	Claims.
(a) Bewaarplaatsen attached to Deep Level Block	0.8525
(b) Water-rights, two small blocks also annexed to the Deep Level Block, together	1.7980
(c) Water-right (known as the Wolsingham Water-right) on the Natal Spruit	7.5672
	10.2177

The following Stands, viz.:—

3 Leasehold Stands, Nos. 678, 679 and 682, Jeppesstown.
10 Leasehold Stands, Nos. 81/88, 91 and 93/96, on the Mynpacht, Doornfontein.

In addition, the Company holds under mynpacht and freehold title an area of 9 morgen, 371 square rods (equal to 13,8576 claims) lately leased to the Spes Bona G.M. Co., Ltd., but which has now reverted to the Company. Upon this ground the Spes Bona Company had erected a dwelling house for the use of their manager, covering an area of 92.91 square rods, the freehold of which has been sold to that Company.

PROFIT AND FINANCIAL.

The Profit and Loss Account shows that the total revenue for the year from all sources amounted to £453,159 9s 7d., and the expenditure to £169,193 8s. 8d., leaving a gross profit of £283,966 0s. 11d. This, together with an amount of £129 5s. 9d. transferred from Revenue Appropriated for Capital Expenditure, added to the credit balance of £122,478 2s. 4d. brought forward from the previous year, gives a total available profit of £406,573 9s. 0d., which has been dealt with as under:—

Dividends Nos. 53 of 45 per cent, and 54 of 55 per cent.	£200,000 0 0
Estimated Profits Tax for 1916	£26,790 2 0
Estimated Percentage of nett produce for 1916 due to the Government of the Union of South Africa in respect of undermining rights of Bewaarplaatsen, etc.	29,112 5 9
	55,902 7 9

Less Amount over-estimated for 1915	0 5 0
Special War Levy	65,902 2 9
Miners' Pthisis Compensation	20,026 17 11
Income Tax	930 6 7
Depreciation written off £17,500 Transvaal 3 per cent. (1958)	2,232 10 3
Balance of unappropriated profit carried forward to new year	5,250 0 0
	122,231 11 6
	£406,573 9 0

The financial position is as follows:—

Liquid Assets:—

Cash on deposit, with accrued interest, and on current account, and gold in transit	£305,898 1 2
Stores on hand	15,882 8 5
Sundry Debtors	1,112 9 4
Insurances, Recruiting Fees, etc., paid in advance	2,824 1 5
Investments	11,341 11 0
	£337,058 11 4

Less—

Liabilities:—

Sundry Shareholders (Dividend No. 54 of 55 per cent.)	£110,000 0 0
Government of the Union of South Africa (estimated Profits Tax and proportion of nett produce in connection with undermining rights of Bewaarplaatsen, etc., for 1916 and Special War Levy)	69,297 8 9
Sundry Creditors	27,738 5 7
Unpaid and Unclaimed Dividends	8,085 12 2
	215,121 6 8

Excess of Liquid Assets over Liabilities ... £121,937 4 10

DIVIDENDS.

Two dividends were declared during the year, namely, No. 53 (of 45 per cent.), paid for the half-year ended 30th June, and No. 54 (of 55 per cent.) for the second half-year, payable to shareholders registered at the 31st December. These dividends amount to a total distribution of £200,000 for the year.

The total dividends and bonuses paid by the Company, aggregating £1,895,368 19s. 0d., amount to 1.475 per cent. on the capital issued from time to time.

GOLD PRODUCTION.

The full mill of 75 stamps ran 343.02 days, and, with accessory tube mills, crushed 176,879 tons of ore, yielding gold to the value of £438,852 12s. 6d., equal to £2 9s. 7.502d. per ton. The working expenditure amounted to £169,193 8s. 8d., or 19s. 1.572d. per ton, leaving a profit on mining of £269,659 3s. 10d. (30s. 5.670d. per ton). The recovery shows an increase of 4s. 4.947d. per ton, and the working costs an increase of 11.529d. per ton as compared with the results for the previous year.

ORE RESERVES.

The fully developed payable ore reserves at the 31st December last are estimated by your Manager at 512,787 mining tons, of an average value of 14.5 dwts. over an average stopping width of 51.3 inches; in addition there were 161,410 mining tons of partially developed ore of an average value of 17.1 dwts. over 47 inches. These reserves have been paid for out of past profits.

Meyer & Charlton Gold Mining Company, Limited—continued.

RECORD OF PAST RESULTS.

A statement of revenue and expenditure from the formation of the Company to date is annexed. The records show that the Company has produced 7,700 tons of ore milled since the commencement of its operations. From other sources, amounts to £5,774,061 6s. 8d. have been received from which a profit, including the premiums on the sale of £2,908,840 9s. 1d. has been derived. This is a record under:—

Transferred to reserve (re-invested in the Company's business)	£1,895,308 19 0
Share Premium Account (also re-invested in Company's business)	288,058 7 0
War Expenditure written off	175,000 0 0
Profits Tax (subject to adjustment)	38,433 8 3
Special War Levy	193,898 2 6
Proportion of nett produce paid to the Government of the Union of South Africa in respect of undermining rights of Bewaarplaatsen, etc., to the 31st December, 1915	25,918 9 5
Estimated proportion of same for the year ended 31st December, 1916 (less over-estimated 1915)	£123,609 8 8
Income Tax	29,112 0 9
Miners' Phthisis Compensation	152,721 9 5
Bearer Warrants written off	3,298 12 6
Depreciation on Stores	6,698 4 8
Depreciation on Investments	55 17 6
Depreciation on Investments	936 0 3
Depreciation on Investments	5,250 0 0

French Taxes	1,931 7 1
Leaving a balance to credit of Appropriation Account at the end of 1916 of	122,231 11 6
	£2,908,840 9 1

GENERAL.

The working profit of £283,966 0s. 11d. for the year under review creates a new record for this Company. The fully developed ore reserves reflect a further increase of 27,541 tons in quantity and 1.91 dwts. in value as compared with the close of the previous year. The partially developed ore reserves show an addition of 114,841 tons.

DIRECTORS.

You will be asked to elect two Directors in place of Messrs. Leopold Albu and Arthur French, who retire in accordance with the Articles of Association, but are eligible—and offer themselves for re-election.

AUDITORS.

It is with extreme regret that your Directors have to announce the death of Mr. J. P. O'Reilly, one of your Auditors, in October last. Mr. F. W. Diamond was appointed by the Board to fill the vacancy thus created.

In terms of the Articles of Association, your Auditors, Messrs. C. L. Andersson & Co. and Mr. F. W. Diamond, retire, and offer themselves for re-appointment. You will be asked to vote their remuneration for the past audit, and to appoint Auditors for the ensuing year.

GEORGE ALBU,
Chairman.

Johannesburg,
7th March, 1917.

Dr.

BALANCE SHEET AT 31st DECEMBER, 1916.

Cr.

To Capital (Authorised and Issued)— 200,000 Shares of £1 each, fully paid as per Balance Sheet at December 31st, 1915	£200,000 0 0
„ Share Premium Account— As per Balance Sheet at December, 31, 1915	£175,000 0 0
„ Revenue Appropriated for Capital Expenditure— As at Dec. 31, 1915 £288,187 12 9 Less Transfer Appropriation Account at 31st Dec., 1916	129 5 9
	288,058 7 0
	463,058 7 0
„ Sundry Creditors	663,058 7 0
„ Unpaid and Unclaimed Dividends	27,738 5 7
„ Sundry Shareholders— Dividend No. 54 of 55 per cent. on £20,000 at 31st December, 1916	8,085 12 2
„ Government of the Union of South Africa— Estimated Profits Tax for 1916 and Estimated Percentage of Net Produce for 1916 in respect of Undermining Rights of Bewaar- plaatsen, etc.	55,902 7 9
Estimated War Levy under Act 24 of 1915 and 34 of 1916	13,395 1 0
	69,297 8 9
„ Balance of Appropriation Account— Profit unappropriated at 31st Dec- ember, 1916	122,102 5 9
Add Transfer from Revenue Ap- propriated	129 5 9
	122,231 11 6
CONTINGENT LIABILITIES.	
Witwatersrand Native Labour Asso- ciation, Ltd.—8s. per Share un- called on 240 Shares	£92 0 0
Rand Mutual Assurance Company, Ltd.—£1 per Share uncalled on 60 Shares	240 0 0
Witwatersrand Co-operative Smelting Works, Ltd.—12s. per Share un- called on 145 Shares	267 0 0
Native Recruiting Corporation, Ltd., Deposit Account—13s. 6d. per native uncalled on complement of 1,143 natives	771 10 6
	£1,370 10 6

At Dec. 31, 1915.	Expenditure, 1916.	At Dec. 31, 1916.
By Property	£122,851 14 6	£422,851 14 6
„ Mynpacat Freshhold	4,283 19 6 Cr. £50 0 0	4,233 19 6
„ Mine Equipment— Permanent Works	59,533 3 4	800 8 9
„ Machinery & Plant	160,713 8 2	Cr. £99 14 6
„ Buildings	15,815 7 3	20 0 0
	£663,187 12 9 Cr. £129 5 9	£663,058 7 0
„ Mine Development (512,787 tons fully developed)		Nil
„ Furniture		210 10 6
„ Live Stock, Vehicles, etc.		83 16 2
„ Stores on Hand		15,882 8 7
„ Investments— Witwatersrand Native Labour Association, Ltd.— 230 Shares of £1 each, 12s. paid up and 25s. per Share deposit. Rand Mutual Assurance Co., Ltd.—60 Shares of £10 each, £6 paid up. Witwatersrand Co-operative Smelting Works, Ltd.—145 Shares of £1 each, 8s. paid up. Native Recruiting Corporation, Ltd.—12 Shares of £1 each, fully paid; and Deposit of 6s. 6d. each on the allotted complement of 1,143 Natives (being part of total liability under agreement of £1 per native	£644 13 6	
£17,599 Transvaal 3 per cent. (1908)	10,696 17 6	
		11,341 11 0
„ Sundry Debtors		1,112 9 4
„ Payments in Advance— Insurances, Recruiting Fees, etc.		2,824 1 5
„ Gold in Transit— Balance due in respect of 983 per cent. advance of the estimated value of gold produced in Dec- ember, 1916	£5,401 0 0	
Estimated balance due on realisa- tion in respect of gold unre- alised since outbreak of war	580 0 0	
		5,981 0 0
„ Cash on Hand— At Bankers— On Fixed Deposit, plus accrued Interest	£229,098 7 4	
£23,000 British Treasury Bills (less discount)	32,625 8 0	
On Current and Dividend Ac- counts, and on Hand	38,193 5 10	
		299,917 1 2

£1,000,411 5 0

£1,000,411 5 0

AURORA WEST UNITED GOLD MINING COMPANY, LIMITED.

(Incorporated in the Transvaal.)

Directorate: Sir George Albu, Bart (Chairman and Managing Director); Leopold Albu, alternate H. W. Dalton; Arthur French, Manager; J. K. Digby, Secretary and Head Office; J. V. Blinkhorn, General Mining Buildings (P.O. Box 1173), Johannesburg. London Committee: P. G. Hamilton Carvill, Jacob Freudenthal,

F. W. Chambers, London Secretary and Office; T. Fredrik Thorne, 63/4 Winchester House, Old Broad Street, E.C.2. Paris Agents and Office: General Mining and Finance Corporation, Ltd., 29, Rue Taibout, Paris.

REPORT OF THE DIRECTORS

For the Year ended 31st December, 1916.

Submitted to the Shareholders at the Ordinary General Meeting, held on Friday, the 29th day of June, 1917, at 12 o'clock noon, in the Board Room, General Mining Buildings, Johannesburg.

To the Shareholders,

AURORA WEST UNITED G.M. CO., LTD.
Johannesburg.

Gentlemen,—

Your Directors beg to submit their Report on the affairs of the Company for the year ended 31st December, 1916, together with the Balance Sheet, Profit and Loss and Appropriation Accounts at that date. These are accompanied by the Reports of the Auditors and the Manager.

CAPITAL.

The total Capital issued remains unaltered at £106,352 10s., divided into 212,705 shares of 10s. each, and your Directors are authorised from time to time to increase the Capital by the creation of new shares of the nominal value of 10s., not exceeding in the aggregate 387,295 shares, and to deal with such shares as they deem fit.

PROPERTY.

The Property consists of a mynpacht (being also freehold portion of the farm Paardkraal No. 42), equivalent to 15,5624 mining claims, which, together with the ground held under claim licences, makes a total area of 155,0517 mining claims; of these, 117,3927 are situated on the reef and 37,659 north of the outcrop. In addition, the Company holds water rights, bewaarplaatsen, etc., as follows:

	Area expressed in Mining Claims.
Water-right No. 663 on Southern Boundary of Paardkraal	11.7504
Water-right No. 522	16.7616
30 Bewaarplaatsen, Nos. 1/30	19.3912
6 Machine Stands, Nos. 37, 38 and 137, 140	1.8122
4 Stands, Nos. 116, 141, 220 and 221	0.2904
	<u>50.0058</u>

PROFIT AND FINANCIAL.

The Profit and Loss Account shows that the total revenue for the year amounted to £219,832 2s. 6d., and the Working Expenditure to £167,783 0s. 9d., leaving a gross profit of £52,049 1s. 9d. After providing for interest on temporary loans, Profits Tax, War Levy and the assessments made on your Company by the Government for the Miners' Phthisis Compensation Fund, there

was a balance of unappropriated profit amounting to £42,499 19s. 9d. Of this amount the sum of £7,508 3s. 10d. was expended on shaft sinking and additions to machinery and plant, and the balance utilised in the reduction of the liability of the Company. The profit is, therefore, unavailable for distribution, and, following precedent, your Directors have applied the amount in writing down the book value of the mine equipment.

The financial position at the date the accounts were made up was as follows:—

LIABILITIES.

Temporary Loans from the General Mining and Finance Corporation, Ltd., with accrued interest	£44,777 7 7
Sundry Creditors and Credit Balances	20,076 13 3
Profits Tax for the year 1916 (estimated)	1,790 6 0
War Levy	895 3 0
	<u>£67,539 9 10</u>

LIQUID ASSETS.

Stores	£20,616 13 1
Sundry Shares	787 11 0
Payments in Advance	2,172 10 2
Sundry Debtors	1,909 13 2
	<u>25,486 7 5</u>
Cash at Bank, on Hand, and Gold on Deposit with Bankers	12,950 3 1
	<u>38,436 10 6</u>
Excess of Liabilities over Liquid Assets	<u>£29,102 19 4</u>

GOLD PRODUCTION.

During the year the full mill of 80 stamps ran for 334.27 days, and crushed 179,410 tons of ore, yielding gold, etc., to the value of £216,961 19s. 1d., or 24s. 2.222d. per ton. The working costs amounted to £167,783 0s. 9d., equal to 18s. 8.437d. per ton milled, leaving a profit on mining operations of £49,178 18s. 4d., or 5s. 5.785d. per ton. As compared with the previous year, the yield shows an increase of 1.702d. per ton, and the working costs a decrease of 5.557d. per ton crushed.

ORE RESERVES.

The fully developed payable Ore Reserves at the 31st December last are estimated by your Manager at 502,320 mining tons, of an average value of 5.62 dwts. per ton over a width of 41.69 inches. In addition, there are approximately 68,500 tons of partially-developed ore of an estimated value of 5.2 dwts. over 42 inches.

Aurora West United Gold Mining Company, Limited—continued.**GENERAL.**

Notwithstanding the heavy increase in the cost of mining supplies during the period, the working profit for the past year reflects an increase of £7,967 10s. over that for 1915. The debt due by the Company to the General Mining and Finance Corporation, Ltd., has been reduced by £36,207 3s. 10d., and would have shown a still further material diminution but for the necessity, owing to war conditions, of largely increasing the stock of stores on hand.

DIRECTORS.

You will be requested to elect two Directors in the place of Messrs. Leopold Albu and Arthur French, who retire in accordance

with the Articles of Association, but are eligible and offer themselves for re-election.

AUDITORS.

You will be asked to vote remuneration for the past audit and to appoint Auditors for the ensuing year in place of Mr. Henry Hains and Messrs. Fraser and Mackenzie, who retire, but, being eligible, offer themselves for re-appointment.

GEORGE ALBU,

Chairman.

Johannesburg,
7th March, 1917.

Dr. Profit and Loss Account for the Year ended 31st December, 1916. Cr.

(179,410 Tons Milled.)

Cost per ton.

s.	d.		
10	2.465	To Mining	£91,550 3 2
0	5.277	„ Sorting, Crushing and Transport	3,945 2 0
1	9.854	„ Milling	16,338 1 5
1	8.565	„ Cyaniding	15,374 18 6
2	0.585	„ General Mine Expenses	18,379 9 10
1	11.128	„ Development	17,288 15 3
0	6.563	„ Head Office Expenditure—	
		Salaries	£1,130 0 0
		Directors' and Auditors' Fees	2,212 11 3
		Exchange	557 11 0
		General Expenses, Stationery, Printing, etc.	1,006 8 4
			<u>4,906 10 7</u>
18	8.437		167,783 0 9
5	5.785	„ Balance carried down ...	49,178 18 4
24	2.222		<u>£216,961 19 1</u>
		To Balance to Appropriation Account ...	£52,049 1 9
			<u>£52,049 1 9</u>

Value per ton.

s.	d.		
		By Gold Won—	Fine Gold.
			Ozs.
17	5.146	From Milling .	37,450.34 £156,351 19 1
6	9.076	„ Cyaniding	14,517.44 60,610 0 0
24	2.222		<u>51,967.78</u>
			<u>£216,961 19 1</u>
		By Balance brought down	£49,178 18 4
		„ Additional Revenue—	
		Rents, Commissions, etc.	2,870 3 3
			<u>£52,049 1 9</u>

Dr. Appropriation Account for the Year ended 31st December, 1916. Cr.

To Interest	45,092 19 1	By Balance of Profit and Loss for the year ended 31st December, 1916, brought down	£52,049 1 9
Profits Tax—			
Estimated Profits Tax for 1916	£1,790 6 0		
Less over-estimated, 1915	1 2 0		
„ War Levy—	1,789 1 0		
For Period ending 31st March, 1917	1,423 10 3		
„ Miners' Phthisis Compensation ...	1,213 8 8		
	9,549 2 0		
„ Balance to Balance Sheet	42,499 19 9		
	<u>£52,049 1 9</u>		<u>£52,049 1 9</u>

Aurora West United Gold Mining Company, Limited—continued.

Dr.	BALANCE SHEET AT 31st DECEMBER, 1916.	Cr.
<p>To Capital Authorised 600,000 Shares of 10s. each</p> <p>Issued: 222,705 Shares of 10s. each, as at 31st December 1915</p> <p>General Mining and Finance Co. portion— Advances, as at December 31, 1915</p> <p>Decrease during 1916</p> <p>Sundry Creditors and Credit Balances</p> <p>Mine Development Reserve— Reduction in excess of Cost, as at December 31, 1915</p> <p>Increase during 1916</p> <p>Government of the Union of South Africa— Estimated Profits Tax for 1916</p> <p>Estimated War Levy under Act 24 of 1915 and Act 34 of 1916</p> <p>Balance of Appropriation Account— Profit for 1916 brought forward</p> <p>Less written off Mine Equipment per contra</p> <p>CONTINGENT LIABILITIES. Witwatersrand Native Labour Asso- ciation, Ltd.—8s. per share un- called on 286 shares</p> <p>Rand Mutual Assurance Co., Ltd.— £1 per share uncalled on 68 shares</p> <p>Witwatersrand Co-operative Smelting Works, Ltd.—12s. per share un- called on 423 shares</p> <p>Native Recruiting Corporation, Ltd. (Deposit Account)—13s. 6d. per native uncalled on complement of 1,490 natives</p>	<p>£300,000 0 0</p> <p>£106,352 10 0</p> <p>£80,984 11 5</p> <p>36,207 3 10</p> <p>14,777 7 7</p> <p>20,076 13 3</p> <p>24,601 0 10</p> <p>1,121 19 11</p> <p>28,726 0 9</p> <p>1,790 6 0</p> <p>895 3 0</p> <p>2,685 9 6</p> <p>42,499 19 9</p> <p>42,499 19 9</p> <p>Nil</p> <p>114 8 0</p> <p>272 0 0</p> <p>253 16 0</p> <p>1,005 15 0</p> <p>£1,645 19 0</p> <p>£202,618 0 7</p>	<p>At December 31, Expenditure, 1915. 1916. Total.</p> <p>By Property</p> <p>Mine Equipment— Permanent Works</p> <p>Machinery & Plant</p> <p>Buildings</p> <p>£198,629 18 11</p> <p>£7,508 3 10</p> <p>£206,138 2 9</p> <p>Written Off.</p> <p>At Dec. 31, 1916.</p> <p>By Property</p> <p>Mine Equipment— Permanent Works</p> <p>Machinery and Plant</p> <p>Buildings</p> <p>Stores on Hand— As at 31st December, 1915</p> <p>Increase during 1916</p> <p>20,616 13 1</p> <p>Investments— Witwatersrand Native Labour As- sociation, Ltd.—286 shares of £1 each, 12s. paid up.</p> <p>Rand Mutual Assurance Co., Ltd. —68 shares of £10 each, £6 paid up.</p> <p>Witwatersrand Co-operative Smelt- ing Works, Ltd.—423 shares of £1 each, 8s. paid up.</p> <p>Native Recruiting Corporation, Ltd.—17 shares of £1 each, fully paid. Deposit of 6s. 6d. each on the allotted complement of 1,490 natives (being part of total liability under agreement of £1 per native)</p> <p>Sundry Debtors</p> <p>Payments in Advance— Insurances, Recruiting Fees, etc.</p> <p>Gold in Transit— Balance due in respect of 98½ per cent. advance of the estimated value of gold produced in Dec- ember, 1916</p> <p>Estimated balance due on realisa- tion in respect of gold unrealised since outbreak of war</p> <p>Cash with Bankers and on hand</p> <p>£202,618 0 7</p>

J. V. BLINKHORN, Secretary.

GEORGE ALBU, Chairman.

To the Shareholders.

ARTHUR FRENCH, Director.

AURORA WEST UNITED G.M. CO., LTD.

We report that we have examined the above Balance Sheet and accompanying Profit and Loss and Appropriation Accounts with the Books and Vouchers of the Company in Johannesburg, from 1st January, to 31st December, 1916, and with the Accounts received from London, and have obtained all the information and explanations we have required as Auditors. In our opinion, such Balance Sheet is properly drawn up so as to exhibit a true and correct view of the state of the Company's affairs according to the best of our information and the explanations given to us, and as shown by the Books of the Company.

FRASER & MACKENZIE,

HENRY HAINS,

Auditors.

Johannesburg,
2nd March, 1917

WEST RAND CONSOLIDATED MINES, LIMITED.

(Incorporated in the Transvaal.)

AUTHORISED CAPITAL	£2,275,000
in 2,250,000 Ordinary Shares of £1 each.	
and 25,000 Deferred Shares of £1 each.	
REGISTERED CAPITAL	£2,025,000
In 2,000,000 Ordinary Shares of £1 each.	
and 25,000 Deferred Shares of £1 each.	

ISSUED CAPITAL	£2,004,121
In 1,979,421 Ordinary Shares of £1 each.	
and 25,000 Deferred Shares of £1 each.	
DEBENTURES outstanding at 31st March, 1917	£361,840

Directorate: Sir George Albu, Bart. (Chairman and Managing Director); Leopold Albu, alternate S. Benning; C. S. Goldman, M.P., alternate, R. Goldman; H. Newhouse; Arthur French; J. Friedlander, alternate, G. C. Fitzpatrick; W. H. Dawe; S. C. Black; H. W. Dalton, Manager; D. T. Morton, Secretary and Head Office; J. V. Blinkhorn, General Mining Buildings (P.O.

Box 1173, Johannesburg. London Committee: Leopold Albu (Chairman), J. Freudenthal, C. S. Goldman, M.P., J. Kitchin, J. Friedlander, Chas. Pakeman, London Secretary and Office: T. Frederick Thorne, 63, 4, Winchester House, Old Broad Street, E.C.2. Paris Agents and Office: General Mining and Finance Corporation, Limited, 29, Rue Taitbout, Paris.

REPORT OF THE DIRECTORS

For the Year ended 31st December, 1916.

Submitted to the Shareholders at the Twelfth Ordinary General Meeting, held on Thursday, the 23th June, 1917, at four o'clock in the afternoon, in the Board Room, General Mining Buildings, Johannesburg.

To the Shareholders,
WEST RAND CONSOLIDATED MINES, LTD.

Gentlemen,—

Your Directors beg to submit their Report on the affairs of the Company for the year ended 31st December, 1916, together with Balance Sheet, Profit and Loss and Appropriation Accounts at that date. The Reports of the Auditors and the Manager are attached.

CAPITAL.

The authorised capital is £2,275,000, divided into 2,250,000 Ordinary Shares and 25,000 Deferred Shares of £1 each. The whole of the Deferred Shares and 1,979,424 Ordinary Shares have been issued and are fully paid up. The registered capital is £2,025,000.

DEBENTURES.

The Debentures outstanding at the 31st December, 1915, amounted to £144,410. During the year under review your Directors purchased further Debentures to the amount of £79,570, at a total discount of £5,143 9s. 9d. The total amount of Debentures now outstanding is therefore £361,840.

On the 1st January, 1916, Debentures to the value of £5,590 were held on account of the £25,000 to be redeemed on the 1st September 1917, as stated in the previous report. Of the £79,570, purchased during the year, £19,410 were therefore required to complete the redemption for that period, thus leaving Debentures to the value of £60,160, on hand to meet future redemptions, so that, even if no further Debentures are purchased, no drawings will be required until September, 1919.

PROPERTY

The property consists of 1,986,3573 mining claims, situate as follows:—

	Claims.
Farm Luipaardsvlei No. 8	1,796,2968
Farm Uitvalfontein No. 2	107,0411
Farm Rivtvei No. 113	62,9834
Farm Waterval No. 74	20,0360

Total 1,986,3573

The Main Reef Series is contained in about 1,956 claims (1,834 in one compact block); of these, 686 claims are also underlain by the Battery Reef. There are 30 claims north of the Reef.

The Company also holds the following Water-rights and Bewaarplaatsen:—

	Area expressed in Mining Claims.
water-right No. 507	1,7983
" 508	1,8614
" 558	0,8976
" 637	6,0474
" 617	6,3168
" 628	22,9536
" 610	21,9960
" 232	6,2448
" 253	5,1144
" 237	4,0800
" 502	3,1752
" 229	9,1325
" 531	7,1573
" 614	9,0145
	111,7898

17 Bewaarplaatsen, situate on Water-right No. 628 11,3333

In addition, the Company holds by leasehold a Water-right situate on the farm Waterval No. 124, of an area, expressed in mining claims, of 12.74, and four Mining Stands.

PROFIT AND FINANCIAL.

The financial position is as follows:—

The Profit and Loss Account shows a working profit for the year of £85,977 4s. 0d., which, with the inclusion of Sundry Revenue, amounting to £22,052 8s. 5d., makes a gross profit of £108,029 12s. 5d. This, added to the credit balance of £276,546 12s. 1 1/2d. brought forward from the previous year, gives a total credit of £384,576 5s. 3d., which has been dealt with as follows:—	
Interest on Debentures	£22,954 0 0
Deenure Trustees' Fees	300 0 0
Profits Tax Estimated, 1916 (less over-estimated, '15)	5,292 2 0
War Levy	5,076 13 5
French Fiscal Tax	370 1 0
English Income Tax	837 1 5
Mine's Phosphorus Compensation	3,765 0 0
Balance, being Unappropriated Profit, carried forward	346,064 7 5
	<u>£384,576 5 3</u>

The following statement shows the receipts and expenditure of the Company from the date of amalgamation (31st May, 1907) to the close of the year under review, and cash on hand at the latter date.

RECEIPTS.

Cash on hand at 31st May, 1907, on amalgamation, as per Balance Sheet at that date:—	
West Rand Consolidated Mines, Ltd. £200,475 3 6	
Violet Consolidated G.M. Co., Ltd. 155,046 4 4	
and West Rand Mines, Ltd.	
Less Sundry Creditors at that date (since paid)	16,667 4 6
Book Value of other Liquid Assets held at date of Amalgamation	19,458 0 2
Sundry Revenue from date of Amalgamation to date of Closing (August 31, 1908)	717,526 16 10
Gold won to December 31, 1916	3,211,282 1 3
Sundry Revenue (including interest) from commencement of Closing to December 31, 1916	105,959 9 3
Proceeds of 25,000 6 per cent. Debentures	500,000 0 0
Fees for Better Warrants issued	29 8 0
	<u>£4,193,107 18 10</u>

EXPENDITURE.

Capital Expenditure from date of Amalgamation to 31st December, 1916:—	
Permanent Works	£25,714 16 0
Machinery and Plant	271,033 16 5
Buildings	4,316 5 8
Mine Development	51,047 4 10
Surface Improvements	11,126 12 7
Working Expenditure from commencement of Closing to 31st December, 1916:—	
Viz. Mining, Sorting, Milling, Cyaniding, Development, General and Administrative Charges	2,620,883 12 3
5 per cent Commission to the Holders of Debenture Issue	£25,000 0 0
Legal and other Expenses in connection with Debenture Issue	7,763 14 4
	<u>32,763 14 4</u>

West Rand Consolidated Mines, Limited—continued

Government Profit Tax from 1908 to 1916 in clusive		
Special War Levy	7,272	16 1/2
Dividend No. 1 of 3 1/4 per cent	74,228	8 0
Interest on Debentures	184,961	6 0
Debenture Trustees' Fees	2,200	0 0
Debentures Bought in Market	135,160	0 0
Depreciation on Stores	4,467	10 3
Mine's Plutonium Compensation	25,717	3 6
French Fiscal Taxes	2,935	0 0
English Income Tax	3,227	5 11
Liability Assets, Furniture, Live Stock, and Vehicles, as per Balance Sheet (after deduct- ing Current Liabilities)	163,043	14 0
	£1,193,107	18 10

GOLD PRODUCTION

The full mill of 100 stamps ran 310.35 days, and (with tube mills) crushed 402,590 tons, yielding gold to the value of £160,154 6s. 8d., equal to 23s. 10.24d. per ton. Working Expenditure amounted to £394,177 2s. 8d., or 19s. 6.98d. per ton, leaving a profit from mining operations for the period of £85,977 4s. 0d.

ORE RESERVES.

The payable ore reserves are estimated by your Manager at 1,600,000 mining tons, fully developed, of an average assay value of 61 dwts. over a stopping width of 50 ins.; there are also approximately 404,000 tons of partially developed payable ore of an estimated value of 8.3 dwts. per ton.

In addition to these reserves, there is a large tonnage in suspense, of which at least 150,000 tons are estimated to be payable.

These figures show a decrease of approximately 90,000 tons of fully and partially developed payable ore as compared with the reserves at the close of the previous year, but an increase in average value of about 0.4 dwt. per ton. The estimated payable tonnage in suspense largely exceeds the corresponding figure at the end of 1915.

GENERAL

The reduction of £27,553 0s. 4d. in the working profit for the past year as compared with the previous twelve months is almost entirely due to the increased cost of mining supplies and other extraordinary expenditure due to the War.

Arrangements are in course of completion for the acquisition, for a nominal consideration of a portion of the mining area of the West Rand Central G.M. Co., Ltd., with the purpose of utilizing certain of the underground workings of that Company as a means of developing the isolated block of approximately 20 claims belonging to your Company, situate to the west of the northern portion of the main block of your property.

DIRECTORS.

You will be requested to elect two Directors in place of Messrs. Arthur French and J. Friedlander, who retire in accordance with the Articles of Association, but are eligible and offer themselves for re-election.

AUDITORS

In terms of the Articles of Association, your Auditors, Mr. E. Duckwerts and Messrs. Ferryman & Goldby, retire, and offer themselves for re-appointment. You will be asked to vote their remuneration for the past audit and to appoint auditors for the ensuing year.

GEORGE ALBU, *Chairman.*

W. H. DAWE

W. H. DAWE,
H. NEWHOUSE

S. C. BLACK,

ARTHUR FRENC

G. C. FITZPATRICK
MICHIGAN COLLEGERICHARD GOLD
H. W. DALTONH. W. DALTON,
S. BENNING

Directors.

Johannesburg.

7th March, 1917.

Dr. **Profit and Loss Account for Year ended 31st December, 1916.**
(402,590 Tons Milled.)

Cost per ton. s. d.			Value per ton.	Ozs.
10 10.283	To Mining	£218,548 7 7	s. d.	Fine Gold.
0 8.135	" Sorting, Crushing and Transport	13,645 12 3	By Gold Won—	
1 5.692	" Milling	29,677 13 5	From Milling	69,884.987 £291,766 19 1
1 8.331	" Cyaniding	34,105 3 7	9 4.363	" Cyanidg.
2 1.831	" General Mine Expenses	43,331 16 3		45,124.233 188,387 7 7
2 0.982	" Development Redeemed	41,907 3 3	23 10.234	<u>115,009.220</u>
0 7.726	" Head Office Expendi- ture—			<u>£480,154 6 8</u>
	Salaries, Directors', Audi- tors and Management			
	Fees	£10,006 5 9		
	Exchange	1,432 13 9		
	General Expenses, Station- ery, Printing, etc. ...	1,522 6 10		
		<u>12,961 6 4</u>		
19 6.980		394,177 2 8		
4 3.254	" Balance carried down ...	65,977 4 0		
23 10.234		<u>£480,154 6 8</u>	23 10.234	<u>£480,154 6 8</u>
	To Balance carried down ...	£108,029 12 5	By Balance Brought down ...	£85,977 4 0
			" Additional Revenue—	
			Interest, Rents, Commission, etc.	£12,577 12 0
			Discount on Debentures purchas- ed for redemption	5,143 9 9
			Dividend on 50,000 Preference Shares of Victoria Falls and Transvaal Power Co., Ltd. ...	4,331 6 8
		<u>£108,029 12 5</u>		<u>22,052 8 5</u>
				<u>£108,029 12 5</u>

Dr. Appropriation Account for the Year ended 31st December, 1916.

[illegible]

West Rand Consolidated Mines, Limited—continued.

[illegible]

J. V. BLINKHORN, *Secretary.*

GEORGE ALBU, *Chairman.*

ARTHUR FRENCH, *Director.*

To the Shareholders,

WEST RAND CONSOLIDATED MINES, LTD.

We report that we have examined the above Balance Sheet and accompanying Profit and Loss and Appropriation Accounts from 1st January, 1914, to 31st December, 1915, and with the Accounts received from London, and have obtained all the information and explanation which we require to give you a true and correct view of the state of the Company's affairs according to the best of our information, and the explanations given to us, and as shown by the Books of the Company.

FERRYMAN & GOLDBY.

E. DANCKWERTS.

Incorporated Accountants.

Auditors.

2nd March, 1917.
Johannesburg.

ROODEPOORT UNITED MAIN REEF GOLD MINING COMPANY, LIMITED.

(Incorporated in the Transvaal.)

CAPITAL (Authorised and Issued) - - - - - **£460,000**

In 460,000 Shares of £1 each.

Directorate: Sir George Albu, Bart. (Chairman and Managing Director); Leopold Albu, alternate H. W. Dalton; Arthur French; H. Newhouse; V. J. Rouketti. Manager: F. W. Girdler-Brown. Secretary and Head Office: J. V. Blinkhorn, General Mining Buildings (P.O. Box 1173), Johannesburg. London Committee: J.

Freudenthal, F. W. Chambers. London Secretary and Office: T. Frederick Thorne, 63 1/4, Winchester House, Old Broad Street, E.C.2. Paris Agents and Office: General Mining and Finance Corporation, Limited, 29, Rue Taitbout, Paris.

REPORT OF THE DIRECTORS

For the Year ended 31st December, 1916.

Submitted to the Shareholders at the Ordinary General Meeting, held on Thursday the 28th day of June, 1917, at 3 o'clock in the afternoon, in the Board Room, General Mining Buildings, Johannesburg.

To the Shareholders.

ROODEPOORT UNITED MAIN REEF G.M. CO., LTD.

Gentlemen.—Your Directors beg to submit their Report on the affairs of the Company for the year ended 31st December, 1916, together with Balance Sheet and Profit and Loss and Appropriation Accounts at that date. The Reports of the Auditors and the Manager are appended.

CAPITAL.

The capital remains unaltered at £460,000 in 460,000 shares of £1 each, all issued and fully paid up.

PROPERTY.

The holdings of the Company are as follows:—

Ground held under Mining Title:—

Mynpacht No. 346—equivalent to 144,000 claims.
Mynpacht No. 380—equivalent to 99,3504 claims.
Claim Area 351,8881 claims.

595,2385 claims.

of which 458.71 claims are on Reef and 136.53 claims North of the Outcrop.

Ground held under Freehold Title on two portions of the Farm Roodepoort No. 45:—

(1) 362 Morgen, 491 Square Roods, or 767.50 Acres.
(2) 2 Morgen, 50 Square Roods, or 4.41 Acres.

Total 362 Morgen, 491 Square Roods, or 767.91 Acres.

In addition, the Company holds the following Water-rights, Bewaarplaatsen, etc.:

	Area expressed in Mining Claims.
Water-right No. 74	32.84
Water-right No. 586	5.88
Water-right No. 653	10.52
Water-right No. 654	6.46
Water-right No. A770	46.71
Water-right No. 713	4.65
26 Bewaarplaatsen	17.01
4 Machine Stands	1.50
24 Stands	1.00
	<u>126.57</u>

PROFIT.

The Profit and Loss Account shows that the total revenue for the year from all sources amounted to £417,964 19s. 8d., and the operating expenditure to £368,043 1s. 8d., leaving a gross profit of £49,921 18s. This, added to the credit balance of Appropriation Account of £121,838 7s. 10d., brought from the previous year, gives a total of £171,760 5s. 10d., which has been dealt with as under:—

Miners' Phthisis Compensation	£3,057 16 1
Interest	23,076 5 0
Balance of Appropriation Account carried forward	145,626 4 9
	<u>£171,760 5 10</u>

Roodepoort United Main Reef Gold Mining Company, Limited—continued.

FINANCIAL POSITION.

The financial position is as follows:—

Liquid Assets.

Cash and Gold in transit	£24,114	6	11
Insurance, Recruiting Fees, etc., paid in advance	3,755	17	8
Stores on hand	31,581	7	9
Sundry Shares	2,246	18	0
Sundry Debtors	4,449	16	9
	<u>£66,148</u>	<u>7</u>	<u>1</u>

Current Liabilities.

Sundry Creditors for Trade Accounts, Machinery, etc.	30,634 15 9
Excess of Liquid Assets over Current Liabilities	£35,513 11 4

On the other hand there is a liability of £295,305 5s. 4d. in respect of loans.

GOLD PRODUCTION.

During the year an average of 75 stamps ran 321.57 days, and, with Tube Mills, crushed 412,845 tons of ore, yielding gold, etc., to the value of £411,314 4s. 8d., or 19s. 11.109d. per ton. The working expenditure amounted to £368,043 1s. 8d., equal to 17s. 9.955d. per ton, leaving a gross profit from mining operations of £43,271 3s. (2s. 1.154d. per ton).

ORE RESERVES

The Payable Ore Reserves are estimated by your Manager at 677,273 mining tons of fully developed ore of an average value of 6.03 dwts. over 46 inches, and 110,776 tons of partially developed ore valued at 6.87 dwts. over 45 inches.

In addition, there are 602,627 tons of fully and partially developed ore for which there is at present insufficient data for definite valuation, but a considerable portion of which is, in the opinion of your Manager, likely to prove payable.

The fully developed payable reserves reflect a decrease of 43.036 tons, with an increase of 0.13 dwts. in grade as compared with the

previous year. The reduction is due to the raising of the limit of payability consequent on the higher scale of working costs now prevailing by reason of the war.

GENERAL

Although the operations for the past year have not shown the degree of progress anticipated when issuing the previous Annual Reports, there has, nevertheless, been a material improvement. The working profit amounted to £43,271 3s., as compared with £17,258 15s. 1d. for the preceding year, and the increase would have been appreciably larger but for the heavy additional cost of stores and other abnormal expenditure consequent on the war, which are estimated by your Manager at approximately £31,000 for the period.

The development of the Kimberley Main Section during the year has continued to disclose satisfactory values. Owing, however, to the very large amount of staidwork in the shape of long cross-cuts, which was involved in opening up the lower levels, the ore reserves do not at present reflect the considerable tonnage of good grade ore which will subsequently be developed in this section. The increasing number of new stope faces in this area which will gradually come under attack in the course of the current year will undoubtedly make for better average grade, and therefore tend towards higher profits.

DIRECTORS

You are requested to elect two Directors in the place of Messrs. H. Newhouse and Arthur French, who retire in terms of the Articles of Association, but are eligible and offer themselves for re-election.

AUDITORS.

In terms of the Articles of Association your Auditors, Messrs. Ferryman & Goldby and Mr. A. Eckart-Beckmann, retire, and offer themselves for re-appointment. You will be asked to vote their remuneration for the past audit and to appoint Auditors for the ensuing year.

GEORGE ALBU, Chairman.

Johannesburg, 7th March, 1917.

Dr.	Profit and Loss Account for the Year ended 31st December, 1916.	Cr.
	(412,845 Tons Milled.)	

Cost per ton.				Value per ton.			
s.	d.			s.	d.		
10	4.350	To Mining	£213,906 15 0			By Gold Won—	Ozs
0	8.249	„ Sorting, Crushing and Transport	14,188 3 11	13	8.009	From Milling	Fine Gold. £282,126 0 11
1	5.260	„ Milling	29,690 17 11	6	3.100	„ Cyaniding	30,943.42 129,188 3 9
1	7.663	„ Cyaniding	33,823 13 2				98,519.30 £411,311 4 8
1	5.869	„ General Mine Charges...	30,739 4 7				
2	0.000	„ Development Redeemed ..	41,264 10 0				
0	2.564	„ Head Office Expenditure—					
		Salaries	£1,455 0 0				
		Managing Directors' and Auditors' Fees...	715 0 3				
		Exchange	1,050 8 3				
		General Expenses, Printing, Stationery, etc.	1,189 8 7				
			4,409 17 1				
17	9.955		£368,043 1 8				
2	1.154	„ Balance carried down ..	43,271 3 0				
19	11.109		£411,314 4 8	19	11.109		£411,314 4 8
		To Balance carried down	£49,921 18 0			By Balance brought down	£43,271 3 0
						„ Additional Revenue—	6,650 15 0
						Rents, Commissions, etc.	£49,921 18 0
			£49,921 18 0				

Dr.	Appropriation Account for the Year ended 31st December, 1916.	Cr.
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To Interest.....	£23,076 5 0	By Balance of Profit and Loss for the	
„ Miners' Phthisis Compensation...	3,057 16 1	year ended 31st December, 1916,	
„ Balance to Balance Sheet	23,787 16 11	brought down	£49,921 18 0
	<u>£49,921 18 0</u>		<u>£49,921 18 0</u>

Rondepoort United Main Reef Gold Mining Company, Limited—continued.

Dr.	BALANCE SHEET AT 31st DECEMBER, 1916.	Cr.
Balance Sheet— At 31st Dec., 1915	£457,503 0 0	At 31st Dec., 1915. Expenditure, At 31st Dec., 1916.
By Property	£23,948 1 9	— £203,948 1 9
„ Mine Equipment and Development		Increase.
Permanent Works ..	187,664 2 6	£8,621 9 5 195,485 11 11
Machinery and Plant (less Proceeds of Sales)	476,440 16 10	Decrease.
		1,263 0 5 475,177 16 5
Buildings	42,450 19 6	Increase.
Reservoirs & Dams ..	11,644 11 2	3,063 0 6 45,514 0 0
	£922,148 11 9	— 11,644 11 2
		£10,621 9 6 932,770 1 3
Expenditure on Development Unre- deemed	71,475 12 7	6,383 11 9 77,859 4 4
	£993,624 4 4	£17,005 1 3 1,010,629 5 7
Balance of Appropriation Account—Amount unappropriated at 31st December, 1915	£121,838 7 10	
Add Profit for 1916, brought forward	23,787 16 11	
	145,626 4 9	
Contingent Liabilities—		
Witwatersrand Native Labour Association, Ltd.—		
8s. per share uncalled on 1,149 shares	459 12 0	206 6 0
Rand Mutual Assurance Co., Ltd.—		207 7 2
£4 per share uncalled on 140 shares	560 0 0	
Witwatersrand Co-Operative Smelting Works, Ltd.—		
12s. per share uncalled on 1,050 shares	630 0 0	
Native Recruiting Corporation, Ltd. (Deposit Account)—		
1s. 6d. per native uncalled on complement of 4,052 natives ..	2,735 2 0	
Machinery on Order	Nil.	
	£4,384 14 0	31,581 7 9

J. V. BLINKHORN, Secretary.

GEORGE ALBU, Chairman.

ARTHUR FRENCH, Director.

To the Shareholders,

RONDEPOORT UNITED MAIN REEF G.M. CO., LTD.,

We report that we have examined the above Balance Sheet, and accompanying Profit and Loss and Appropriation Accounts, with the Books and Vouchers of the Company in Johannesburg, from 1st January to 31st December, 1916, and with the accounts received from London, and have obtained all the information and explanations we have required as Auditors. In our opinion such Balance Sheet is properly drawn up so as to exhibit a true and correct view of the state of the Company's affairs according to the best of our information and the explanations given to us, and as shown by the Books of the Company.

FERRYMAN & GOLDBY,

A. ECKART-BECKMANN.

Incorporated Accountants.

Auditors.

Johannesburg, 2nd March, 1917.

NEW GOCH GOLD MINES, LTD.

(Incorporated in the Transvaal.)

CAPITAL (Authorised and Issued)

£550,000

In 550,000 Shares of £1 each.

Directorate: Sir George Albu, Bart. (Chairman and Managing Director); Leopold Albu, alternate H. W. Dalton; Jacob Freudenthal, alternate S. Benning; Arthur French. Manager: Geo. G. Holmes. Secretary and Head Office: J. V. Blinkhorn, General Mining Buildings (P.O. Box 1173), Johannesburg. London

Committee: P. G. Hamilton Carvill, Jacob Freudenthal, Robert Whyte. London Secretary and Office: T. Frederick Thorpe, 63, 1, Winchester House, Old Broad Street, E.C.2. Paris Agents and Office: General Mining and Finance Corporation, Ltd., 29 Rue Taibout, Paris.

REPORT OF THE DIRECTORS

For the Year ended 31st December, 1916.

Submitted to the Shareholders at the Ordinary General Meeting, held on Thursday, the 28th day of June, 1917, at 12 o'clock noon, in the Board Room, General Mining Buildings, Johannesburg.

To the Shareholders,

NEW GOCH GOLD MINES, LIMITED.

Gentlemen,—Your Directors beg to submit their Report on the affairs of the Company for the year ended 31st December, 1916, together with the Balance Sheet and Profit and Loss and Appropriation Accounts at that date. These are accompanied by the Reports of the Auditors and Manager.

CAPITAL.

The Capital remains unaltered at £550,000, in shares of £1 each, all issued and fully paid up.

PROPERTY.

Your Property consists of an area of 149,5910 claims, of which 126,735 are on Reef and 22,856 situate north or the outcrop of the Reef Series. In addition to the above-mentioned claim areas, the Company holds two water rights, bewaarplaatsen, machine stands and other ground, as follows:—

- (a) Water Right No. 334, equivalent to 16,384 mining claims in area, situate 3,250 feet south of the reef in the outcrop mine.
- (b) Water Right No. 307-8, equivalent to 10,29 mining claims in area, situate 3,930 feet south of the outcrop in the Henry Nourse.
- (c) Machine stand adjacent to Water Right Nos. 307-8, in area 0.17 of a claim.
- (d) Bewaarplaats on Water Right Nos. 307-8, in area 0.67 of a claim.
- (e) Four mining stands on claims.
- (f) Freehold Stand 261, in the Township of Jeppesstown South.

PROFIT AND FINANCIAL.

The profit from mining operations for the past year was £107,115 3s. 11d., and with the addition of sundry revenue amounting to £5,743 1s. 9d., the gross profit totalled £112,865 5s. 8d. This, added to the credit balance of £32,623 16s. 4d., brought forward from the previous year, gives a total credit of £145,487 2s., which has been dealt with as follows:—

Dividend No. 8 of 5 per cent. ...	£27,500 0 0	
Dividend No. 9 of 5 per cent. ...	27,500 0 0	
		£55,000 0 0
Estimated Government Profits Tax for 1916 (plus amount under-estimated for 1915) ...		5,756 12 0
War Levy ...		4,085 3 2
Revenue appropriated—		
For expenditure on—		
Machinery and Plant ...	£528 18 10	
New Development ...	1,000 10 1	
		1,529 8 11
Miners' Phthisis and Other Compensation ...		2,864 4 5
English Income Tax ...		286 2 6
Balance, being unappropriated profit carried forward ...		75,955 11 0
		<u>£145,487 2 0</u>

GOLD PRODUCTION.

The Mill of 120 stamps ran for 347,572 days, and (with tube mills) crushed 365,000 tons, yielding gold to the value of £355,822 15s. 11d., equal to 19s. 5.766d. per ton. The working costs totalled £243,407 12s. (13s. 1.3361. per ton), leaving a gross profit from mining operations of £107,115 3s. 11d. (5s. 10.432d. per ton). As compared with the previous year, the yield shows an increase of 6,362d. per ton, and the working costs a reduction of 3.703d. per ton milled.

ORE RESERVES.

The fully-developed payable ore reserves at the 31st December last are estimated by your Manager at 404,185 mining tons of an average value of 5.32 dwts., calculated over an average width of 77 inches. In addition, there are 43,093 tons of partially-developed ore of an estimated value of 4.76 dwts. per ton. There are also 195,065 tons of developed ore of an average value of 2.87 dwts. over 46 inches, which are at present classified as unpayable.

GENERAL.

The faulted nature of the reefs in the lower levels of the mine, referred to in the previous Annual Report of your Directors, is responsible to a large extent for the reduction in the ore reserves as compared with the end of 1915.

Arrangements for the working by your Company of 20 claims of the City Deep Company's mining area immediately adjoining the New Goch southern boundary have now been completed. The necessary agreement between the two companies is in course of preparation for signature, and will provide for the mining of the claims for joint account on the basis of the statement made by your Chairman at the Annual Meeting of Shareholders held in July last.

The unappropriated profit of £75,965 11s. carried forward to the new year is represented as to approximately £42,000, by stores, etc., on hand, and the balance by cash. The latter is being retained chiefly for the purpose of shaft sinking in and the development of the 20 City Deep claims referred to in the previous paragraph.

DIRECTORS.

You will be requested to elect two Directors in place of Messrs. J. Freudenthal and Arthur French, who retire in accordance with the Articles of Association, but are eligible and offer themselves for re-election.

AUDITORS.

You will be asked to vote remuneration for the past audit and to appoint Auditors for the ensuing year in the place of Messrs. Douglas, Low & Co., who retire, but, being eligible, offer themselves for re-appointment.

GEORGE ALBU, Chairman

Johannesburg, 7th March, 1917.

New Goch Gold Mines, Limited.—continued.

Dr. PROFIT & LOSS ACCOUNT for the YEAR ENDED 31st DECEMBER, 1916. Cr.
(365,000 Tons Milled.)

Cost per ton.				Value per ton.			
s.	d.			s.	d.		
7	2 103	To Mining	£1 19 17 13 5			By Gold Won—	Ozs.
0	7.847	„ Sorting, Crushing and Transport	11 0 4 16 5				Fine Gold.
1	7.692	„ Milling	13 0 13 19 3	12	5.205	From Milling	54,351 231 £226,916 10 6
1	9.021	„ Cyaniding	51 953 3 9	7	0.563	„ Cyaniding	30,804 040 123,606 5 5
1	5.189	„ General Mine Expenses...	26,141 12 4				
0	6.421	„ Mine Development	9,765 19 10			85,155.271	£355,522 15 11
0	5.063	„ Head Office Expenditure					
		Salaries	£1,725 0 0				
		Directors' & Auditors' Fees	3,160 3 4				
		Exchange	867 10 6				
		General Expenses, Stationery, Printing, etc.	1,947 8 4				
			7,700 2 2				
13	7.336		248,407 12 0				
5	10.432	„ Balance carried down ..	107,115 3 11				
19	5.768		£355,522 15 11	19	5.768		£355,522 15 11
		To Balance to Appropriation Account	£112,863 5 8			By Balance brought down ...	£107,115 3 11
			£112,863 5 8			„ Additional Revenue—	
						Rents, Commissions, etc.	5,748 1 9
							£112,863 5 8

Dr.

APPROPRIATION ACCOUNT.

Cr.

To Government of the Union of South Africa—				By Balance of Profit and Loss for the year ended 31st December, 1916, brought down		£112,863 5 8
Estimated Profits Tax, 1916	£5,741 16 0					
Plus under-estimated in 1915....	14 16 0					
	5,756 12 0					
War Levy (for period to 31st March, 1917)	4,035 3 2					
		9,841 15 2				
„ English Income Tax		286 2 6				
„ Miners' Phthisis and Other Compensation		2,864 4 5				
„ Dividend—						
No. 8 of 5 per cent., on £550,000, at 30 6 16	27,500 0 0					
No. 9 of 5 per cent., on £550,000, at 31/12 16	27,500 0 0					
		55,000 0 0				
„ Revenue appropriated for Capital Expenditure—						
Expended on Machinery and Plant	523 13 10					
Expended on New Development ..	1,030 10 1					
		1,529 8 11				
		69,521 11 0				
„ Balance to Balance Sheet		43,341 14 8				
		£112,863 5 8				£112,863 5 8

New Goch Gold Mines, Limited.—continued.

Dr.	BALANCE SHEET AT 31st December, 1916.		Cr.	
To Capital (Authorised and Issued— 550,000 Shares of £1 each, fully paid, as per Balance Sheet at 31st December, 1915 „ Share Premium Account— As per Balance Sheet at 31st Dec- ember, 1915 „ Revenue appropriated for Redemp- tion of Debentures and Capital Expenditure— As at 31st Decem- ber, 1915... .. Add transferred from Appropriation Account during year 1916	£550,000 0 0	£106,250 0 0	At 31st Dec., 1915.	Expenditure, At 31st Dec., 1916.
Note.—Expended in the annual redemption of Debentures from July 1, 1903 to 1st July, 1915 Expended on Equipment and Development in excess of Working Capital provided	350,000 0 0	75,968 17 8	£520,406 12 7	£520,406 12 7
„ Sundry Creditors... .. „ Unpaid and Unclaimed Dividends and Debentures „ Sundry Shareholders Dividend No. 9 of 5 per cent. on £550,000. „ Government of the Union of South Africa— Estimated Profits Tax for 1916... Estimated War Levy under Act 24 of 1915 and 34 of 1916	£425,968 17 8	£424,439 8 9	By Property „ Mine Equipment and Development— Permanent Works .. Machinery and Plant (less Proceeds of Sales)... .. Buildings... .. Reservoirs and Dams	£520,406 12 7
„ Balance of Appropriation Account— Amount unappropriated at 31st De- cember, 1915 Add Balance brought forward from 1916	32,623 16 4	43,341 14 8	£1,018,303 9 2	£523 18 10
Contingent Liabilities. Witwatersrand Native Labour As- sociation, Ltd.—8s. per share un- called on 602 shares Rand Mutual Assurance Co., Ltd. —£4 per share uncalled on 88 shares Witwatersrand Co-operative Smel- ting Works, Ltd.—12s. per share uncalled on 909 shares ... Native Recruiting Corporation, Ltd., Deposit Account.—13s. 6d. per Native uncalled on comple- ment of 2,178 Natives	£2,608 7 0	£1,218,143 5 7	£1,018,832 8 0	£1,018,832 8 0
„ Cash on Hand At Bankers, on fixed deposit, plus accrued interest On Current, Dividend and Deben- ture Accounts and on hand	£1,218,143 5 7	£1,218,143 5 7	£1,000 10 1	£1,000 10 1

J. V. BLINKHORN, Secretary

To the Shareholders,

NEW GOCH GOLD MINES, LIMITED.

We report that we have examined the above Balance Sheet and the Books and Vouchers of the Company in Johannesburg from 1st January 1916 to 31st December 1916 and have obtained all the information and explanations which we have deemed necessary to enable us to certify the correctness of the information and the explanations given to us, and as shown by the Balance Sheet.

Johannesburg, 3rd March, 1917

GEORGE ALBU, Chairman

ARTHUR FRENCH, Director

We have also examined the above Balance Sheet and the Accounts with the Bankers, and have obtained all the information and explanations which we have deemed necessary to enable us to certify the correctness of the information and the explanations given to us, and as shown by the Balance Sheet.

DOUGLAS, LOW & CO.,

(Incorporated Accountants), Auditors.

Cinderella Consolidated Gold Mines, Limited.

(Incorporated in the Transvaal.)

AUTHORISED CAPITAL - - - - £1,500,000

In 1,500,000 Shares of £1 each.

ISSUED CAPITAL - - - - £1,159,450

In £1,159,450 Shares of £1 each.

Directorate: Sir George Albu, Bart. (Chairman and Managing Director); S. B. Jock, alternate; G. Imroth; Leopold Moos, alternate; H. W. Dalton; Arthur French; John Munro; Jacob Freudenthal, alternate; S. Benning. Secretary and Head Office: J. V. Blankhorn, General Mining Buildings (P.O. Box 1175), Johannesburg. London

Committee: P. G. Hamilton Carvill, Jacob Freudenthal, F. W. Chambers, London Secretary and Office: T. Frederick Thorne, 67 St. Vincent Street, Old Broad Street, E.C.2. Paris Agents and Office: General Mining and Finance Corporation, Ltd., 29, Rue Taillout, Paris.

REPORT OF THE DIRECTORS

For the Year ended 31st December, 1916.

Submitted to the Shareholders at the Ordinary General Meeting, held on Friday, the 29th day of June, 1917, at 11 o'clock in the forenoon, in the Board Room, General Mining Buildings, Johannesburg.

To the Shareholders,

CINDERELLA CONSOLIDATED GOLD MINES, LTD.

Gentlemen,—Your Directors beg to submit their Report on the affairs of the Company for the year ended 31st December, 1916, together with the Balance Sheet and Profit and Loss Account at that date, accompanied by the Report of the Auditors.

CAPITAL.

The issued Capital of the Company remains unaltered at £1,159,450 in shares of £1 each, fully paid.

DEBENTURES.

The amount of Debentures issued remains unaltered at £500,000. As intimated in previous reports, the payment of interest on and the redemption of these Debentures have been postponed for a period expiring 12 months after the termination of the present war.

PROPERTY.

During the year the transfer of the ground purchased from the East Rand Proprietary Mines, Ltd.—equal to 16,5030 claims—was effected, and the Company's property now consists of the following:

	Area expressed in Mining Claims.
Portion of the Farm Leeuwpoot No. 4, full and/or Quilrent title, in extent 525 2155 acres.	
Mynraet No. 324, equivalent to	376 3803
Mynraet No. 325, equivalent to	208 7776
Mynraet No. 326 (acquired from East Rand Proprietary Mines, Ltd.), equivalent to Claim Area, Leeuwpoot No. 4	2 7403 1,563 2386
	<u>2,011 1878</u>

On Farm Vogelfontein No. 5 (acquired from East Rand Proprietary Mines, Ltd.) ...	13 7622
Undermining Rights acquired from Govern- ment on Farm Vogelfontein No. 5	30 8400
Undermining Rights acquired from Govern- ment on Leeuwpoot No. 4	45 8640
	<u>90 4662</u>

(The consideration payable for the under-
mining rights acquired from the Government,
as detailed above, is 4.169 per cent. of the
annual net produce of the Company.)

2,101.6340

In addition, the Company holds the following water rights:—

	Mining Claims.
Water Right No. 455, equivalent to	17 0677
Water Right No. 479, equivalent to	45 8483
Water Right No. K6, equivalent to	155 5030

Total 218 4190

FINANCIAL.

The financial position is as follows:—

	Current Liabilities.
Sundry Creditors	£1,026 7 7
Debenture Interest (from 1st June, 1914, to 31st December, 1916) ...	71,041 13 4
	<u>£72,068 0 11</u>
	Liquid Assets.
Sundry Shares	£1,163 10 6
Stores	17,537 8 7
Sundry Debtors	1,751 2 3
Payments in Advance (Insurances, etc.)	349 6 11
Cash on Fixed Deposit and on hand at Bankers	12,277 15 7
	<u>33,079 3 10</u>
Excess of Current Liabilities over Liquid Assets	<u>£38,988 17 1</u>

Cinderella Consolidated Gold Mines, Limited—continued.

The following statement shows the receipts and expenditure of the Company from its inception to the close of the year under review:—

Receipts.	
Working Capital—	
402,100 Original Shares issued at par	£402,100 0 0
250,000 Shares issued in 1910 at £2 per share	500,000 0 0
	£902,100 0 0
£500,000 5½ per cent. Debentures, fully paid	500,000 0 0
Less discount of 5 per cent. on £500,000 5½ per cent. Debentures issued at 95 per cent.	25,000 0 0
	475,000 0 0
Sundry Revenue from inception of Company to date of crushing ...	57,900 7 0
Sundry Revenue from commencement of crushing to date	57,658 16 9
Gold won from commencement of crushing to date	1,220,546 2 3
Cash received from Rand Central Gold Mines, Ltd., on acquisition of property and assets of that Company	134,672 14 10
	£2,847,878 0 10

Expenditure.	
Capital Expenditure:—	
Expenditure on Property	£2,748 3 10
Permanent Works	400,879 13 0
Machinery and Plant	438,428 4 7
Buildings	88,154 16 5
Mine Development	308,789 11 2
Reservoirs and Dams	16,546 4 4
Surface Improvements	3,416 13 0
401.0411 Claims purchased for cash during 1910	297,119 19 8
0.3334 Claims purchased for cash during 1911	2,438 4 0
16.5030 Claims purchased for cash during 1916	14,496 4 3
(Including Transfer Dues, etc., on other Claims previously purchased.)	£1,573,017 14 3
Working Expenditure from commencement of crushing to date	1,084,224 8 2
(Mining, Milling, Cyaniding, Maintenance, Mine Development and General Expenses.)	
Transfer Duty, Amalgamation Expenses, etc., in connection with claims acquired during 1910	25,764 15 5

Debenture Interest (to May 31, 1914)	96,250 0 0
Debenture Trustees' Fees	1,204 3 4
Interest on Loan	13,056 5 4
Income Tax	2,429 2 7
Profits Tax	3,990 2 5
Miners' Phthisis Compensation	6,664 1 5
Furniture	861 14 11
Live Stock, Vehicles, etc.	5 3 3
Bearer Warrants (written off)	1,321 11 8
Printing & Stamping Debenture Bonds	6,385 2 7
Depreciation on Stores	652 19 3
Debenture Interest due from the 1st June, 1914, to 31st December, 1916, payment of which is deferred in terms of Resolution passed at a Meeting of Debenture-holders held in London on the 26th November, 1914	71,041 13 4
	£2,886,666 17 11
Deduct—	
Current Liabilities	72,068 0 11
Less Cash on Hand and other liquid assets (as per Balance Sheet)	33,079 3 10
	38,988 17 1
	£2,847,878 0 10

GENERAL.

The Mine is still closed down until such time as opportunity arises for re-financing the Company.

DIRECTORS.

You will be requested to elect two Directors in place of Messrs. Leopold Albu and Arthur French, who retire in accordance with the Articles of Association, but are eligible and offer themselves for re-appointment.

AUDITORS.

You will be asked to vote remuneration for the past audit and to appoint Auditors for the ensuing year in place of Messrs. Douglas, Low & Co., who retire, but, being eligible, offer themselves for re-appointment.

GEORGE ALBU, Chairman.

Johannesburg, 7th March, 1917.

Dr. Profit and Loss Account for the Year ended 31st December, 1916.

Cr.

To Expenditure—	
Licences and Mynpacht Dues	£5,243 16 0
Insurances	497 7 7
Municipal Assessment Rates	709 6 2
Mine Maintenance	1,801 7 3
Secretarial and Audit Fees	521 0 0
European Agencies	607 10 0
Printing, Stationery, Advertising, etc.	370 8 6
In connection with Engineer's Report on property	1,239 15 0
	£10,990 10 6

By Revenue—	
Interest, etc.	£2,516 18 8
.. Balance to Appropriation Account	8,473 11 10
	£10,990 10 6

Dr. Appropriation Account for the Year ended 31st December, 1916.

Cr.

To Balance of Profit and Loss Account for the Year ended 31st December, 1916, brought down...	£8,473 11 10
.. Debenture Interest—	
Interest for year to 31st December, 1916, payment of which is deferred in terms of resolution passed at a Meeting of Debenture-holders held in London on 26th November, 1914	27,500 0 0
.. Debenture Trustees' Fees	50 0 0
.. Miners' Phthisis Compensation	210 5 2
.. Income Tax, England	199 17 6
	£36,433 14 6

By Balance to Balance Sheet	£36,433 14 6
	£36,433 14 6

Cinderella Consolidated Gold Mines, Limited—continued.

Dr.		BALANCE SHEET at 31st DECEMBER, 1916.		Cr.	
To Capital—				At 31st Dec., 1915. Expenditure, 1916. At 31st Dec., 1916.	
Authorised—				By Property £700,748 8 1 £14,496 4 3 £715,244 12 4	
1,500,000 Ordinary Shares of £1 each		£1,500,000 0 0		(Plus Payment for Mining Ground purchased from East Rand Proprietary Mines, Ltd. 16,5030 Claims.)	
Issued—				„ Mine Equipment and Development—	
1,159,450 Ordinary Shares of £1 each, as per Balance Sheet at 31st December, 1915		£1,159,450 0 0		Permanent Works 400,929 13 0 Decrease. 50 0 0 400,879 13 0	
5½ per cent. Debentures		500,000 0 0		Machinery & Plant, less Proceeds of Sales	
„ Share Premium Account—				Buildings	
As per Balance Sheet at 31st December, 1915		225,000 0 0		Reservoirs & Dams	
Sundry Revenue from Inception of Company to Date of Crashing		£57,900 7 0		Surface Improvements	
Transfer from Appropriation Account—				1,649,611 4 6 12,858 19 2 1,662,670 3 8	
At 31st December, 1915		18,459 8 8		Expenditure on Development paid for by East Rand Proprietary Mines, Ltd., under agreement	
Expended on Fixed Assets		76,359 15 8		310,993 11 2 Decrease. 2,209 0 0 308,789 11 2	
Sundry Creditors		£1,960,809 15 8		£1,960,809 15 8 £10,649 19 2 £1,971,459 14 10	
Sundry Debenture Holders—		1,026 7 7		Furniture	
For Interest due from 1st June, 1914, to 31st December, 1916		71,041 13 4		Live Stock, Vehicles etc.	
Unclaimed Debenture Interest—		52 10 6		Stores on Hand, including Machinery not yet erected	
As per contra				Investments—	
Contingent Liabilities—				Witwatersrand Native Labour Association, Ltd.—	
Witwatersrand Native Labour Association, Ltd.—				664 shares of £1 each, 12s. paid up.	
8s. per share uncalled on 664 shares		£265 12 0		Rand Mutual Assurance Co., Ltd.—	
Rand Mutual Assurance Co., Ltd.—				1 share of £10, £6 paid up.	
£4 per share uncalled on 1 share		4 0 0		Native Recruiting Corporation, Ltd.—	
Native Recruiting Corporation, Ltd.—				24 shares of £1 each, fully paid, and Deposit of 6s. 6d. each on the total complement of 5 natives (being part of total liability under agreement of £1 per native)	
Deposit Account—				Sundry Debtors	
13s. 6d. per native uncalled on complement of 5 natives		3 7 6		Payments in Advance	
		£272 19 6		Cash—	
				At Bankers on Deposit, with accrued Interest	
				At Bank and on Hand	
				12,277 15 7	
				Cash at Bankers, as per contra, for Unclaimed Debenture Interest	
				Appropriation Account—	
				Loss for 1916 brought forward	
				Less Balance unappropriated at December 31, 1915	
				8 961 14 9	
				27,471 19 9	
				£2,032,930 7 1	

J. V. BLINKHORN, Secretary.

GEORGE ALBU, Chairman.

ARTHUR FRENCH, Director.

To the Shareholders,

CINDERELLA CONSOLIDATED GOLD MINES, LTD.

We report that we have examined the above Balance Sheet and accompanying Profit and Loss and Appropriation Accounts with the Books and Vouchers of the Company in Johannesburg from 1st January to 31st December, 1916, and with the Accounts received from London, and have obtained all the information and explanations we have required as Auditors. In our opinion, such Balance Sheet is properly drawn up so as to exhibit a true and correct view of the state of the Company's affairs, according to the best of our information and the explanations given to us, and as shown by the Books of the Company.

DOUGLAS, LOW & CO.,

Johannesburg, 7th March, 1917

(Incorporated Accountants), Auditors.

New Steyn Estate Gold Mines, Limited.

(Incorporated in the Transvaal.)

Directorate: Sir George Albu, Bart. (Chairman and Managing Director); Leopold Albu, alternate H. W. Dalton; Jacob Freudenthal, alternate S. Benning; Arthur French. Secretary and Head Office: J. V. Blinkhorn, General Mining Buildings (P.O. Box 1173), Johannesburg. London Committee: P. G. Hamilton Carvill, Jacob

Freudenthal, Robert Whyte. London Secretary and Office: T. Frederick Thorne, 63/4, Winchester House, Old Broad Street, E.C.2. Paris Agents and Office: General Mining and Finance Corporation, Ltd., 29, Rue Taitbout, Paris.

REPORT OF THE DIRECTORS

For the Year ended 31st December, 1916.

Submitted to the Shareholders at the Ordinary General Meeting, held on Friday, the 29th day of June, 1917, at half-past three o'clock in the afternoon, in the Board Room, General Mining Buildings, Johannesburg.

To the Shareholders,

NEW STEYN ESTATE GOLD MINES, LIMITED.

Gentlemen,—Your Directors beg to submit their Report on the affairs of the Company for the year ended 31st December, 1916, together with the Balance Sheet, Profit and Loss and Appropriation Accounts and Auditors' Report at that date.

CAPITAL.

The Capital remains unaltered at £300,000, in £1 shares, all issued and fully paid up.

PROPERTY.

Your Property consists of the following:—

(1) The freehold of a portion of the farm Vlakfontein, 3,687 acres in extent (equal to 5.7 English square miles), constituting the deep levels of the Roodepoort mines. Upon this the Company owns a mynpacht (No. 261), equivalent to 250,848 claims, together with 499,335 mining claims on the south and west of the mynpacht, making in all 750,1837 claims.

(2) On the farm Roodepoort No. 43 it holds 250,8928 claims, situate north of the deep level block, and on the southern boundary of the Durban Roodepoort Deep, Ltd.

(3) The freehold of the northern portion of the farm Doornkop No. 46, 3,656 acres in extent (equal to 5.7 English square miles).

(4) 20,9386 claims on the farm Vogelstruisfontein No. 55.

Summary.

Mining Claims.

Deep level ground south of the Roodepoort Mines (farms Vlakfontein, Roodepoort and Vogelstruisfontein) ... 1,022,0151

Area of freehold properties, equal to 11½ English square miles.

The revenue collected during the year on account of the Company's half-share of the licences from companies and syndicates owning claims on the freeholds of the farms Vlakfontein and Doornkop was £1,203.

FINANCIAL.

The revenue for the year, from interest, licences and rent, amounted to £3,775 5s. 11d., and the expenditure, including cost of administration, claim licences and taxes, to £4,877 3s. 2d., leaving a net loss of £1,101 17s. 3d., which, deducted from the unappropriated profit brought forward from the previous year of £54,435 7s. 5d., leaves a credit balance of £53,333 10s. 2d. to be carried forward to the current year. The Reserve Account of £54,173 0s. 5d., formed from premiums received from the issue of shares, is unchanged.

The financial position is as follows:—

Liquid Assets.

Cash on Fixed Deposit, with Accrued Interest, and on Current Accounts	£55,633 12 1
Payments in Advance for Mynpacht	
Dues	74 1 6
Sundry Debtors	50 10 0
Investments (Mining Company's Shares) at book value	20,735 7 10
	<u>£76,493 11 8</u>

Liabilities.

Sundry Creditors	359 14 8
Excess of Liquid Assets over Liabilities.	<u>£76,133 17 0</u>

GENERAL.

Your Directors have taken the opportunity of a visit which Mr. G. A. Denny, Mining Engineer (formerly for many years intimately associated with these Goldfields) is making to the Rand, to request him to make a thorough investigation and report on the influence of the neighbouring mines on your property, and on its development at some future date. Mr. Denny is at present engaged on this work.

DIRECTORS

You will be requested to elect two Directors in place of Messrs. J. Freudenthal and Arthur French, who retire in terms of the Articles of Association, but are eligible and offer themselves for re-election.

AUDITORS

It is with extreme regret that your Directors have to report the death of one of your Auditors, Mr. J. N. Webb, in November last. Your Directors have not thought it necessary to appoint an Auditor in his stead, and the audit has therefore been completed and the Balance Sheet signed by the late Mr. Webb's coadjutors, Messrs. Douglas, Low and Co.

You will be asked to vote re-appoint him for the past audit and to elect an Auditor in Auditors for the ensuing year.

GEORGE ALBU, Chairman.

Johannesburg, 7th March, 1917.

New Steyn Estate Gold Mines, Limited—continued.

Dr.	BALANCE SHEET at 31st DECEMBER, 1916.	Cr.
To Capital—		By Property—
300 000 Shares of £1 each, as per		As per Balance Sheet at Decem-
Balance Sheet at 31st December,		ber 31st, 1915
1915	£300,000 0 0	£331,672 13 7
Reserve	54,473 0 5	.. Investments—Shares in a Mining
Sundry Creditors	359 14 8	Company
Unclaimed Dividends—as per contra	66 9 4	20,735 7 10
Balance of Appropriation Account—		.. Sundry Debtors
Profits unappropriated	53,333 10 2	50 10 0
		.. Payments in Advance—Mynpacht
		Dues
		74 1 6
		.. Cash at Bankers—To meet Un-
		claimed Dividends, as per contra...
		66 9 4
		.. Cash—
		Bankers on Fixed Deposit
		£50,000 0 0
		Add Accrued Interest
		1,215 8 3
		With Bankers on Current Account
		and on hand
		4,418 4 1
		55,633 12 4
	£408,232 14 7	£408,232 14 7

J. V. BLINKHORN, Secretary.

GEORGE ALBU, Chairman.

To the Shareholders,

ARTHUR FRENCH, Director.

NEW STEYN ESTATE GOLD MINES, LIMITED.

We report that we have examined the above Balance Sheet and accompanying Profit and Loss and Appropriation Accounts with the Books and Vouchers of the Company in Johannesburg, from 1st January to 31st December, 1916, and with the Accounts received from London, and have obtained all the information and explanations we have required as Auditors. In our opinion such Balance Sheet is properly drawn up so as to exhibit a true and correct view of the state of the Company's affairs according to the best of our information and the explanations given to us, and as shown by the Books of the Company.

DOUGLAS, LOW & CO.,

Johannesburg, 7th March, 1917.

(Incorporated Accountants), Auditors.

Dr.	Profit and Loss Account for the Year ended 31st December, 1916.	Cr.
To Expenditure—		By Revenue—
Salaries, including Expenses of		Interest
London Committee and Foreign		£2,472 5 11
Agencies	£1,055 0 0	Licences—Owner's Half-Share of
Audit Fees	31 10 0	Claim Licences
Licences, Mynpacht Rents and		1,203 0 0
Quitrents	2,911 5 0	Rents
Paris Responsible Agent's Re-		100 0 0
muneration	150 0 0	£3,775 5 11
French Taxes	56 7 9	.. Balance to Appropriation Account
General Expenses, Stationery,		1,101 17 3
Printing, etc.	387 14 7	
On account of investigations re-		
lating to proposed subsequent		
development of property	285 5 10	
	£4,877 3 2	
	£4,877 3 2	£4,877 3 2

Dr. Appropriation Account for the Year ended 31st December, 1916. Cr.

To Balance—Brought down	£1,101 17 3	By Balance at 31st December, 1915 ...	£54,435 7 5
.. Balance to Balance Sheet	53,333 10 2		
	£54,435 7 5		£54,435 7 5

RAND COLLIERIES, LIMITED.

(Incorporated in the Transvaal.)

CAPITAL (Authorised and Issued) - - - - £631,250

In 631,250 Shares of £1 each.

Directorate: Sir George Albu, Bart. (Chairman), Leopold Albu (alternate H. W. Dalton), Arthur French. Secretary and Head Office: J. V. Blinkhorn, General Mining Buildings (P.O. Box 1173), Johannesburg. London Committee: J. Freudenthal, F. W. Cham-

bers. London Secretary and Office: T. Frederick Thorne, 63/4, Winchester House, Old Broad Street, E.C.2. Paris Agents and Office: General Mining and Finance Corporation, Ltd., 29, Rue Taitbout, Paris.

REPORT OF THE DIRECTORS

For the Year ended 31st December, 1916.

Submitted to the Shareholders at the Ordinary General Meeting, held on Friday, the 29th day of June, 1917, at three o'clock in the afternoon, in the Board Room, General Mining Buildings, Johannesburg.

To the Shareholders,

RAND COLLIERIES, LIMITED.

Gentlemen,—Your Directors beg to submit their Report on the affairs of the Company for the year ended 31st December, 1916, together with Balance Sheet at that date.

CAPITAL.

The issued Capital remains at the same figure as at the date of the previous Annual Report, viz., £631,250 in 631,250 shares of £1 each.

PROPERTY.

The property consists of a portion of the farm Witpoort No. 12 situated in the East Rand district and midway between the mines of the East Rand Proprietary Group and the Van Ryn and New Kleinfontein Companies. The total area over which the Company possesses rights is 5,910 acres, equal to 9.23492 square miles, as follows:—

- (a) The freehold of the central portion of the farm (including coal mining rights), in area 2,951½ acres.
- (b) The coal rights of a further portion of the same farm in extent 2,958½ acres.

GOLD MINING RIGHTS.

The gold mining rights held by the Company are as under:—

	Claims.
Werf Mynpacht, equivalent to ...	576,3840
Mynpacht ...	201,1416
Owners' Claims ...	6,0000
Vergunning Claims	45,0000
	<u>828,5256</u>

Titles have been obtained in respect of the whole of the a claims. Certificate of Owners' Reservation has been granted in respect of two portions of the Property:—

- (1) 4 morgen, equivalent to ... 5,7600 claims.
 - (2) 206 morgen 501 sq. roods, equivalent to 297,8424 claims.
- Total ... 363,6024 claims.

The Company's freehold portion of Witpoort No. 12 has been proclaimed a public digging, but has been reserved from pegging. The portion of the farm to be dealt with by the Government under the Gold Law is equivalent to 1,179,5472 claims.

COAL MINING RIGHTS.

The Coal Mining Rights cover the entire area of 5,910 acres.

FINANCIAL.

For the year under review, the revenue from rents, etc., amounted to £1,590 7s. 1d., whilst on the other hand general expenses at the Mine and Head Office totalled £2,219 4s. 3d., and interest on advances amounted to £14,654 1s. 9d.

The financial position is as follows:—

Liquid Assets:—

Insurance, etc., paid in advance	£57 13 0
Sundry Shares	323 17 6
Sundry Debtors	19 14 9
Stores on Hand	2,953 9 3
Cash on Hand	1,301 17 10
	<u>£4,656 12 4</u>

Deduct:—

Current Liabilities:—

Sundry Creditors	134 5 6
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Excess of Liquid Assets over Liabilities	<u>£4,522 6 10</u>
--	--------------------

On the other hand there is a liability of £215,010 18s. 8d. to the General Mining and Finance Corporation, Ltd., in respect of advances made by that Corporation.

GENERAL.

The property still remains closed down, and, as pointed out by your Chairman at the annual meeting of Shareholders in May last, there appears to be little or no hope of its resuscitation until after the termination of the war.

You will be requested to elect two Directors in the place of Messrs. Leopold Albu and Arthur French, who retire in accordance with the Articles of Association, but are eligible and offer themselves for re-election.

AUDITORS.

You will be asked to vote remuneration for the past audit, and to elect Auditors for the ensuing year in place of Messrs. Fraser & Macleod, who retire, but, being eligible, offer themselves for re-appointment.

GEORGE ALBU,

Chairman.

Johannesburg, 7th March, 1917.

Rand Collieries, Limited—continued.

Dr.	BALANCE SHEET at 31st DECEMBER, 1916.	Cr.
To Capital (Authorised and Issued)—		
631,250 Shares of £1 each, fully paid, as per Balance Sheet at 31st December, 1915	£631,250 0 0	
Share Premium Account—		
Premium of 20s. per Share on 125,250 Shares	£125,250 0 0	
Less Underwriters' Commission of 1s. per Share	6,312 10 0	
	119,937 10 0	
General Mining and Finance Cor- poration, Ltd.	215,010 18 8	
Advances.		
Sundry Creditors	134 5 6	
Contingent Liabilities—		
Witwatersrand Native Labour Associa- tion, Ltd.—		
8s. per share uncalled on 170 shares	£68 0 0	
Native Recruiting Corporation, Ltd. (Deposit Account)—		
13s. 6d. per native uncalled on com- plement of 5 natives	3 7 6	
Rand Mutual Assurance Co., Ltd.—		
£4 uncalled on 1 share	4 0 0	
	£75 7 6	
	£966,332 14 2	
	At 31st Dec. 1915.	Sales.
By Property	£186,102 4 2	—
Mine Equipment and Development—		
Permanent Works	280,767 13 0	280,767 13 0
Machinery and Plant	25,174 19 11 Cr.	£1,850 0 0 213,284 19 11
Buildings	39,166 8 6	39,166 8 6
Mine Development	165,188 7 1	165,488 7 1
Railway Siding	17,653 7 5	17,058 7 5
	£903,718 0 1 Cr.	£1,850 0 0 £901,868 0 1
	Add Expenditure on Licences, Myn- pacht Dues, Insurance, Miners' Phthisis Compensation, Secretarial and Auditors' Fees from 1st Janu- ary, 1914, to 31st December, 1916	£6,940 2 0
	Interest on Advances to date	66,025 15 8
		£72,965 17 8
	Less Receipts for Rents, etc., from 1st January, 1907, to 31st December, 1916	15,906 7 4
		57,059 10 4
		£958,927 10 5
	Coal Prospecting	1,709 14 6
	Surface Improvements	925 18 7
	Live Stock, Vehicles, etc.	10 3 6
	Furniture	102 14 10
	Stores	2,953 9 3
	Investments—	
	Witwatersrand Native Labour Associa- tion, Ltd.—	
	170 Shares of £1 each, 12s. paid up.	
	Rand Mutual Assurance, Co., Ltd.—	
	1 Share of £10, £6 paid.	
	Native Recruiting Corporation, Ltd.—	
	8 Shares of £1 each, fully paid, and Deposit of 6s. 6d. each on the allotted complement of 5 natives (being part of total liability under agreement of £1 per native)	323 17 6
	Sundry Debtors	19 14 9
	Payments in Advance	57 13 0
	Cash—	
	At Bankers on Current Account and on Hand	1,301 17 10
		£966,332 14 2

To the Shareholders,

J. V. BLINKHORN, Secretary.

GEORGE ALBU, Chairman.

ARTHUR FRENCH, Director.

RAND COLLIERIES, LIMITED.

We report that we have examined the above Balance Sheet with the Books and Vouchers of the Company, from 1st January to 31st December, 1916, and have obtained all the information and explanation we have required as Auditors. In our opinion, such Balance Sheet is properly drawn up so as to exhibit a true and correct view of the state of the Company's affairs, according to the best of our information and the explanations given to us, and as shown by the Books of the Company.

FRASER & MACKENZIE,
Auditors

Johannesburg, 3rd March, 1917.

EAST RAND PROPRIETARY MINES, LTD.

(Incorporated in the Transvaal.)

REPORT OF THE DIRECTORS

For the Year ended 31st December, 1916.

Presented at the Twenty-first Ordinary General Meeting of Shareholders, held in the Board Room, Farrar Buildings, Simmonds Street, Johannesburg, on the 13th June, 1917, at 10.15 a.m.

To the Shareholders,

EAST RAND PROPRIETARY MINES, LIMITED.

Gentlemen,—

Your Directors beg herewith to submit their Report for the year ended 31st December, 1916, together with the Statement of Accounts, duly audited, and the Reports of the Superintending Engineer, and the Manager.

PROPERTY.

The Superintending Engineer having reported that 220 Claims situate North of the Reef were no longer of any value to the Company, the Board, after obtaining the necessary sanction of the Trustees to the Debenture Holders, decided to abandon them. A saving of £567 per annum in licences is thereby effected.

The registration of the 16½ claims sold to the Cinderella Consolidated Gold Mines, Limited, was effected early in 1916, and the purchase consideration has been received.

CAPITAL.

There is no change to report in the Registered and Issued Capital of the Company

FINANCIAL.

Accounts.—The net profit for the year amounts to £364,319 16s. 2d., which with the amount brought forward from the previous Balance Sheet, viz., £193,353 16s. 8d. and £23,450 2s. 4d., representing the difference between the nominal value and the cost of Debentures purchased during the year makes a total of £581,323 15s. 2d. This sum has been dealt with as follows:—

Dividend No. 22 of 2½ per cent	£61,147	8	6
Government Taxes	20,360	19	6
Special War Levy	9,255	5	0
Expenditure on Plant and Equipment	49,663	13	4
Union Government Under-mining Rights Annuity	17,567	0	0
Nominal value of Debentures purchased	108,160	0	0
	£266,151	6	4

Balance of Appropriation Account:—

Cash and Cash Assets (Stores, Foodstuffs, Sundry Debtors, etc.)	315,169	8	10
	£581,323	15	2

Investment of Funds.—The Company recently subscribed £250,000 in the Imperial War Loan, and also holds Exchequer Bonds to the value of £100,000.

The Board feels confident that their action will be endorsed readily by Shareholders.

Dividends.—Although the profit earned for the half-year was sufficient for the payment of a 2½ per cent. dividend, the Board decided that no distribution of profits should take place by reason of the continued disappointing reef values disclosed by development, the large encroachment on the Ore Reserve, and the abnormal inflow of water met with in the Crosscut. In view of these facts and having regard to the Debenture obligations and the moneys required for development when the reef is met with in the sub-vertical shaft, the Board considered it imperative further to strengthen the financial position of the Company by conserving the current profits pending a decided improvement in the position of the mine.

The action of the Board is in pursuance of the policy laid down by the Chairman at the last annual Meeting, when dealing with the question of future dividends.

Special War Levy.—The Government has again imposed a Special War Levy of £500,000 on the profits of Gold Mining Companies. The necessary provision for the estimated amount payable by this Company is made in the Accounts.

Debentures.—During the year the Board purchased at an average cost of £78 6s. 5d. per cent. £108,160 of the Company's Debentures being £18,160 in excess of the amount which, in terms of the Debenture Trust Deed, the Company has to redeem annually.

Debenture Holders were duly notified that no drawing for the year ended the 28th February, 1917, would take place.

The Debentures outstanding at the 31st December, 1916, were £1,043 (\$0).

Advances on Native Gold.—The arrangements made with the Bank of England regarding advances on Native Gold, which you were advised of in the last Annual Report, have not been modified.

Expenditure on Authorised Votes, 1916.—The amount unex-

pended on Votes at 31st December, 1915, was £58,209 and during 1916 Votes aggregating £98,872 were passed, giving a total authorised expenditure of £157,081.

The actual expenditure was £133,458, leaving an unexpended balance of £23,593 to be carried forward to 1917.

EXPENDITURE FOR 1917.

The Superintending Engineer estimates that in addition to the unexpended balance brought forward from last year, the sum of £94,895 will be required to meet the programme for 1917.

The principal items of expenditure are detailed in his report.

MINE DEVELOPMENT SUSPENSE ACCOUNT.

The total amount to the credit of this Account at December 31, 1916, was £357,566, an increase of £29,287 over the figure of the previous year.

OPERATIONS, 1916.

The particulars of the results of last year's operations, the development accomplished and the Ore Reserves and values, are dealt with in the annexed reports of the Superintending Engineer and the Manager, to which you are referred.

Your special attention is directed to the remarks of the Superintending Engineer under the heading of the "Sub-Vertical Shaft Scheme." You will note that very satisfactory progress was made with the scheme until the inflow of water met with on the 27th level cross-cut, stopped all work. With a view to avoiding, if possible, the delay in, as also the heavy cost of, installing further pumping plant to deal with the additional water, arrangements have been concluded, in England, with Mons. Francois, the inventor of the "Cementation Process," to proceed to the mine with as little delay as possible, in order to endeavour, by means of his process, to seal up the water-conveying crevices and fissures. Should his be successful, then development operations and shaft sinking will be greatly accelerated—matters of vital importance.

MINERS' PHTHISIS.

The Company's proportion of the assessment in respect to the Miners' Phthisis Compensation Fund for the year was £17,282, and of the Insurance Fund £15,553, bringing the total amounts paid to date to £105,139 and £47,852 respectively.

EMPLOYEES ON ACTIVE SERVICE.

The Company at 31st December, 1916, had 304 employees on Active Service, of whom 108 are with the Overseas Contingent, and 196 with the German East African Expeditionary Force.

The allowances paid to the men and their dependents during 1916 amounted to £22,917.

It is with regret that the Board has to report that 27 employees have been killed in action. Profound sympathy is extended to their relatives.

EUROPEAN COMMITTEE.

The Board has to record, with extreme regret, the death of Sir Sigmund Neumann, who was a member of the European Committee since it was established.

The vacancy on the Committee created by the death of Mons. J. Jacquot was filled by the appointment of Mons. Georges Rouliot, for a number of years a Director of the Company.

DIRECTORATE.

In terms of the Articles of Association, Sir H. Ross Skinner, Mr. Julius Friedlander, and Mr. Jules Jourdan retire from the Board, but, being eligible, they offer themselves for re-election.

During the year, Mr. Gustav Imroth resigned his seat on the Board. His resignation was accepted with regret.

AUDITORS.

You will be requested to fix the remuneration of the retiring Auditors, Messrs. C. L. Anderson & Co., and A. E. Page for the p.p. audit, and to appoint Auditors for the ensuing year.

E. A. WALLERS, Chairman.
F. C. DUMAT,
G. C. FITZPATRICK,
W. J. GAU,
A. G. GILL,
J. JOURDAN,
A. S. MILNE,
F. RALEIGH,
E. RENAUD.

Directors.

H. P. FRASER, Secretary.

Johannesburg,
February, 1917.

East Rand Proprietary Mines, Limited—continued.

Dr.	BALANCE SHEET, 31st DECEMBER, 1916.	Cr.
To Capital Account— Registered 2,514,000 shares of £1 each . £2,514,000 0 0 Less 63,103 shares of £1 each un issued. . . 63,103 0 0 Issued 2,450,897 shares of £1 each . £2,445,897 0 0 „ 5 per cent. First Mortgage De- bentures 1,500,000 0 0 Less purchased to date 456,920 0 0 „ Government of the Union of S.A. "Annuity Account"— For total amount payable (in twelve annual instalments of £17,567 each) as consideration for grant of Undermining Rights 210,804 0 0 Less amount paid to 3rd July, 1916, and proportion provided for balance of year ended 31st December, 1916 79,051 10 0 „ Shareholders— Unclaimed Dividends 41,490 15 2 „ Debenture Holders— Debenture Interest, Coupon No. 12 £26,159 5 0 Unclaimed Interest 3,675 1 2 „ Creditors and Credit Balances— Open Amounts £144,730 18 6 Government Taxes 28,462 16 11 „ Mine Development Suspense „ Balance of Appropriation Account NOTE.—There are Contingent Liabili- ties in respect of:— 3,839 Witwatersrand Native Labour Association, Ltd., shares, 8s. per share uncalled £1,535 12 0 5,623 Witwatersrand Co-operative Smelting Works, Ltd., shares, 12s. per share uncalled 3,373 16 0 840 Rand Mutual Assurance Com- pany, Ltd., shares, £4 per share uncalled 3,360 0 0 Native Recruiting Corporation, Ltd., Deposit Account, 13s. 6d. per unit of complement uncalled 12,427 8 6 „ Stores and Materials „ Foodstuffs „ Livestock, Vehicles, etc. „ Debtors „ Payments in Advance „ Cash and Gold in Transit— Exchequer Bonds, with Interest accrued to date British Treasury Bills, with Inter- est accrued to date Union Government of S.A. 5 per cent. Local Reg. Stock, with interest accrued to date On Fixed Deposit, London and Paris On Current Accounts, London and Johannesburg Gold in Transit „ Balance brought down „ Interest, Rents, etc.		

Dr. Working Revenue & Expenditure Account for the Year ended 31st December, 1916. Cr.

To Mining Expenses £1,134,056 7 1 „ Mine Development 233,306 5 0 „ Reduction Expenses 380,838 5 11 „ General Expenses 119,742 5 0 „ Credit Balance carried down „ Other Expenditure on Account of— Authorised Votes £66,975 2 11 Donations 1,972 18 9 Debenture Interest 53,385 10 0 Miners' Phthisis Compensation Fund 17,281 13 7 War Leave 22,916 18 8 „ Credit Balance carried to Appro- priation Account By Gold £2,365,107 14 3 „ Balance brought down „ Interest, Rents, etc.		
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East Rand Proprietary Mines, Limited—continued.

Dr.	APPROPRIATION ACCOUNT.	Cr.
To Dividend Account— Dividend No. 22 of 2½ per cent., declared June, 1916 £61,147 8 6	By Balance Unappropriated— As per Balance Sheet, 31st December, 1915 ... £193,353 16 8 Balance of Working Expenditure and Revenue Account brought down 364,519 16 2 Difference between Nominal Value of— Debentures Purchased £108,160 0 0 And Cost thereof 81,769 17 8	
„ Government Taxes— Estimated amount due under the Mining Taxation Act, 1910, for the year ended 31st December, 1916, plus adjustment for pre- vious year, and Income Tax paid to 30th June, 1916 £20,360 19 6 Special War Levy—Estimated 9,235 5 0		23,450 2 4
„ Expenditure on Capital Account Written Off— Surface and Under- ground Equip- ment, etc. (au- thorised votes) .. £65,680 17 5 Less Property and Plant sold 16,017 4 1		49,663 13 4
Proportion of Undermining Rights Annuity for year ended 31st December, 1916 17,567 0 0 Nominal value of Debentures pur- chased 108,160 0 0		175,390 13 4
„ Balance Unappropriated carried to Balance Sheet 315,169 8 10		
	£581,323 15 2	£581,323 15 2

H. P. FRASER, Secretary.

O. C. MEREDITH, Acting Chief Accountant.

E. A. WALLERS, Chairman.

E. RENAUD, Director.

To the Shareholders,

EAST RAND PROPRIETARY MINES, LTD.

We have audited the Balance Sheet of the East Rand Proprietary Mines, Ltd., dated the 31st day of December, 1916, above set forth, and have obtained all the information and explanations we have required. In our opinion such Balance Sheet is properly drawn up so as to exhibit a true and correct view of the state of the Company's affairs according to the best of our information and the explanations given us, and as shown by the books of the Company, with which are incorporated the audited returns received from the London Office.

C. L. ANDERSSON & CO.,
Incorporated Accountants,A. E. PAGE,
Incorporated Accountant, Auditors.

Johannesburg, 28th February, 1917.

SACKE ESTATES AND MINING COMPANY, LTD.

(Incorporated in the Transvaal.)

Directorate: Sir George Albu, Bart (Chairman), Arthur French, H. W. Dalton, Secretary and Head Office, J. V. B'inkhorn, General Mining Buildings (P.O. Box 1173), Johannesburg. London Committee: J. Freudenthal, F. W. Lunan, Robert Whyte, London Secretary and Office: T. Frederick Thorne, 63/4, Winchester House, Old Broad Street, E.C.2. Paris Agents and Office: General Mining and Finance Corporation, Ltd., 29, Rue Taitbout, Paris.

REPORT OF THE DIRECTORS

For the Year ended 31st December, 1916.

Submitted to the Shareholders at the Ordinary General Meeting, held on Friday, the 29th day of June, 1917, at four o'clock in the afternoon, in the Board Room, General Mining Buildings, Johannesburg.

To the Shareholders,

SACKE ESTATES AND MINING CO., LTD.,

Gentlemen,—Your Directors beg to submit their Report on the affairs of the Company for the year ended 31st December, 1916, together with the Balance Sheet and Profit and Loss Account at that date. The Auditors' Report is appended.

CAPITAL.

The Capital remains at £250,000, in shares of £1 each, of which 225,000 shares are issued and fully paid up, and 25,000 are held in reserve.

PROPERTY.

The Properties owned consist of the following:—

(a) One-half undivided interest in the freehold portion of the farm Middelvie No. 6, in the district of Krugersdorp, which portion is known as Buitenfontein, and is 737 morgen 302 square rods in extent.

(b) An eighth undivided interest in the Wisbech-Swaziland Mineral Concession.

(c) A three-fourths undivided interest in a piece of freehold land, situated at Hout Bay, in the Cape Division, being part of the divided estate Kronendale, 18 morgen 50 square rods in extent.

FINANCIAL.

The revenue for the past year amounted to £3,092 16s., and general expenditure to £1,115 7s. 2d., leaving a profit of £1,977 8s. 10d.

Liquid Assets.

Cash on Fixed Deposit, with Accrued Interest, and Current Account, etc.	£40,623 14 10
Sundry Debtors	495 11 11
Payments made in advance	6 5 0
Shares and Debentures in various Companies (valued at or under Stock Exchange closing prices at 31st December, 1916)	25,770 3 0
	£66,895 14 1

Liabilities.

Sundry Creditors	455 8 9
Excess of Liquid Assets over Liabilities	£66,440 6 0

DIRECTORS.

You will be asked to elect two Directors in place of Messrs. Arthur French and H. W. Dalton, who retire, but are eligible and offer themselves for re-election.

AUDITORS.

You will be asked to vote remuneration for the past audit and to appoint Auditors for the ensuing year in place of Mr. A. Eckart-Beckmann and Messrs. Douglas, Low and Co., who retire, but, being eligible, offer themselves for re-appointment.

GEORGE ALBU, Chairman

Johannesburg, 7th March, 1917.

Sacke Estates and Mining Company, Limited.—continued.

Dr.	BALANCE SHEET AT 31st DECEMBER, 1916.	Cr.
To Capital—		
As per Balance Sheet at December 31st, 1915:—		
250,000 Shares of £1 each ...	£250,000 0 0	
Less 25,000 Shares in Reserve ...	25,000 0 0	
	<u>£225,000 0 0</u>	
„ Sundry Creditors ...	455 8 9	
	<u>£225,455 8 9</u>	
	By Properties—	
	As per Balance Sheet at December 31st, 1915... ..	£49,899 17 11
	„ Stands and Buildings at Cost—	
	Commissioner Street, Johannesburg	7,473 7 11
	„ Investments—	
	Shares and Debentures in Mining Companies, etc., valued at or under Stock Exchange closing prices at 31st December, 1916	23,770 3 0
	„ Sundry Debtors	495 11 11
	„ Payments in Advance	6 5 0
	„ Cash—	
	With Bankers on Fixed Deposit ...	£32,000 0 0
	Add Interest accrued to date ...	761 14 0
	£3,000 British Treasury Bills, less Discount	2,961 2 4
	Union of S.A. Treasury Bills ...	3,500 0 0
	Add Interest accrued to date ...	9 9 10
	With Bankers on Current Account and on Hand	1,391 8 8
		<u>40,623 14 10</u>
	„ Profit and Loss Account	101,186 8 2
		<u>£225,455 8 9</u>

J. V. BLINKHORN, Secretary.

GEORGE ALBU, Chairman.

ARTHUR FRENCH, Director.

To the Shareholders,

SACKE ESTATES AND MINING CO., LTD.

We report that we have examined the above Balance Sheet and accompanying Profit and Loss Account with the Books and Vouchers of the Company in Johannesburg, from 1st January to 31st December, 1916, and with the Accounts received from London, and have obtained all the information and explanations we have required as Auditors. In our opinion such Balance Sheet is properly drawn up so as to exhibit a true and correct view of the state of the Company's affairs according to the best of our information and the explanations given to us, and as shown by the Books of the Company.

DOUGLAS, LOW & CO.,

A. ECKART-BECKMANN,

(Incorporated Accountants), Auditors.

Johannesburg, 9th March, 1917.

Dr.	Profit and Loss Account for the Year ended 31st December, 1916.	Cr.
To Expenditure—		
Salaries	£360 0 0	
Auditors' Fees	21 0 0	
Licences and Mynpacht Dues ...	20 0 0	
Assessment Rates	32 15 8	
Insurances	20 1 2	
European Agencies	477 13 4	
General Expenses, Stationery, Printing, etc.	183 17 0	
	<u>£1,115 7 2</u>	
„ Balance carried down	1,977 8 10	
	<u>£3,092 16 0</u>	
To Balance at 31st December, 1915	£102,496 4 6	
„ Depreciation on Investments ...	665 12 6	
	<u>£103,163 17 0</u>	
	By Revenue—	
	Interest, Commissions, etc. (less Income Tax)	£2,615 16 0
	Rents	477 0 0
		<u>£3,092 16 0</u>
	By Balance brought down	£1,977 8 10
	„ Balance to Balance Sheet	101,186 8 2
		<u>£103,163 17 0</u>

The Simmer & Jack Proprietary Mines, LIMITED.

(Incorporated in the Transvaal.)

NOTICE TO SHAREHOLDERS.

NOTICE IS HEREBY GIVEN that the Nineteenth Ordinary General Meeting of Shareholders in the above Company will be held in the Board Room, Consolidated Gold Fields Buildings, Simmonds Street, Johannesburg, on Friday, the 28th September, 1917, at 2.30 o'clock in the forenoon, for the following purposes:—

1. To receive and consider the Reports of the Directors and Auditors, the Balance Sheet as at 30th June, 1917, and Statement of Income and Expenditure for the year ended 30th June, 1917.
2. To elect two Directors in the places of Messrs. D. Christopherson and F. Leslie Brown, who retire by rotation, but are eligible and offer themselves for re-election.
3. To appoint Auditors for the current year, and to fix the remuneration for the past year's audit.
4. To transact such other business as may be transacted at an Ordinary General Meeting.

The Transfer Books of the Company will be closed from 21st to 28th September, 1917, both days inclusive.

Holders of Share Warrants to Bearer intending to vote at this Meeting must comply with the regulations concerning the issue of Share Warrants.

By Order of the Board,

The Consolidated Gold Fields of South Africa, Ltd., Secretaries.

Per A. C. GRANT.

Head Office: Consolidated Gold Fields Buildings,
Simmonds Street, Johannesburg, 2nd July, 1917.

The Simmer and Jack Proprietary Mines, Limited.

(Incorporated in the Transvaal.)

Declaration of Interim Dividend No. 30.

NOTICE IS HEREBY GIVEN that an Interim Dividend of $3\frac{1}{2}$ per cent. (Ninepence per Share), amounting to £112,500, has been declared for the six months ending 30th June, 1917, being at the rate of $7\frac{1}{2}$ per cent. per annum, payable on or about 15th August, 1917, to Shareholders registered in the Company's Books on 6th July, 1917.

The Transfer Books of the Company will be closed from 7th to 14th July, 1917, both days inclusive.

The Dividend will be payable to Shareholders on the South African Register by warrants to be issued from the Head Office of the Company in Johannesburg, and to Shareholders on the London Register by warrants to be issued from the London Office of the Company.

Holders of Share Warrants to Bearer are informed that they will receive payment of the Dividend on presentation of Coupon No. 30, either at the Offices of the African Banking Corporation, Ltd., 63, London Wall, London, E.C., or at the Offices of The Consolidated Gold Fields of South Africa, Ltd., at 12, Rue des Pyramides (being the Paris Agents of the Company). Coupons will be payable at any time on or after 15th August, 1917, and must be left for examination at either of the foregoing addresses at least four clear days prior to payment being made.

By Order of the Board,

The Consolidated Gold Fields of South Africa, Ltd., Secretaries.

Per A. C. GRANT.

Head Office: Consolidated Gold Fields Buildings,
Simmonds Street, Johannesburg,
28th June, 1917.

Robinson Deep, Limited.

(Incorporated in the Transvaal.)

DECLARATION OF DIVIDEND No. 3

("A" SHARES.)

NOTICE IS HEREBY GIVEN that Dividend No. 3, on "A" Shares, of 4s. (Four Shillings) per Share, amounting to £100,000, has been declared for the six months ending 30th June, 1917, payable on or about 30th August, 1917, to Shareholders of "A" Shares registered on the 6th July, 1917.

The Transfer Books of the Company will be closed from 7th to 14th July, 1917, both days inclusive.

The Dividend will be payable to Shareholders on the South African Register by warrants to be issued from the Head Office of the Company in Johannesburg, and to Shareholders on the London Register by warrants to be issued from the London Office of the Company.

Holders of Share Warrants to Bearer are informed that they will receive payment of the Dividend on presentation of Coupon No. 3, either at the Offices of the African Banking Corporation, Ltd., 63, London Wall, London, E.C., or at the Offices of The Consolidated Gold Fields of South Africa, Ltd., at 12, Rue des Pyramides (being the Paris Agents of the Company). Coupons will be payable at any time on or after 30th August, 1917, and must be left for examination at either of the foregoing addresses at least four clear days prior to payment being made.

By Order of the Board,

The Consolidated Gold Fields of South Africa, Ltd., Secretaries

Per A. C. GRANT.

Head Office: Consolidated Gold Fields Buildings,
Simmonds Street, Johannesburg,
28th June, 1917.

The Sub Nigel, Limited.

(Incorporated in the Transvaal.)

NOTICE TO SHAREHOLDERS.

NOTICE IS HEREBY GIVEN that the Nineteenth Ordinary General Meeting of Shareholders in the above Company will be held in the Board Room, Consolidated Gold Fields Buildings, Simmonds Street, Johannesburg, on Friday, the 28th September, 1917 at 10.45 o'clock in the forenoon, for the following purposes:—

1. To receive the Reports of the Directors and Auditors, and to consider the Balance Sheet as at 30th June, 1917, and Statement of Income and Expenditure for the year ended 30th June, 1917.
2. To elect two Directors in the places of Messrs. J. H. Leslie and C. Hely-Hutchinson, who retire by rotation, but are eligible and offer themselves for re-election.
3. To elect Auditors for the current year, and to fix the remuneration for the past year's audit.
4. To transact such other business as may be transacted at an Ordinary General Meeting.

The Transfer Books of the Company will be closed from 21st to 28th September, 1917, both days inclusive.

By Order of the Board,

The Consolidated Gold Fields of South Africa, Ltd., Secretaries

Per A. C. GRANT.

Head Office: Consolidated Gold Fields Buildings,
Simmonds Street, Johannesburg, 2nd July, 1917.

The Knights Deep, Limited.

(Incorporated in the Transvaal.)

Declaration of Interim Dividend No. 24.

NOTICE IS HEREBY GIVEN that an Interim Dividend of 5 per cent. (One Shilling per Share), amounting to £37,176 6s., has been declared for the six months ending 30th June, 1917, being at the rate of 10 per cent. per annum, payable on or about 27th July, 1917, to Shareholders registered in the Books of the Company on 6th July, 1917.

The Transfer Books of the Company will be closed from 7th to 14th July, 1917, both days inclusive.

The Dividend will be payable to Shareholders on the South African Register by warrants to be issued from the Head Office of the Company in Johannesburg, and to Shareholders on the London Register by warrants to be issued from the London Office of the Company.

By Order of the Board,

The Consolidated Gold Fields of South Africa, Ltd., Secretaries.

Per A. C. GRANT.

Head Office: Consolidated Gold Fields Buildings,
Simmonds Street, Johannesburg,
28th June, 1917.

The Jupiter Gold Mining Company LIMITED.

(Incorporated in the Transvaal.)

Declaration of Interim Dividend No. 6.

NOTICE IS HEREBY GIVEN that an Interim Dividend of 3½ per cent. (Ninepence per Share), amounting to £38,032 10s., has been declared for the six months ending 30th June, 1917, being at the rate of 7½ per cent. per annum, payable on or about 27th July, 1917, to Shareholders registered in the Company's Books on 6th July, 1917.

The Transfer Books of the Company will be closed from 7th to 14th July, 1917, both days inclusive.

The Dividend will be payable to Shareholders on the South African Register by warrants to be issued from the Head Office of the Company in Johannesburg, and to Shareholders on the London Register by warrants to be issued from the London Office of the Company.

By Order of the Board,

The Consolidated Gold Fields of South Africa, Ltd., Secretaries.

Per A. C. GRANT.

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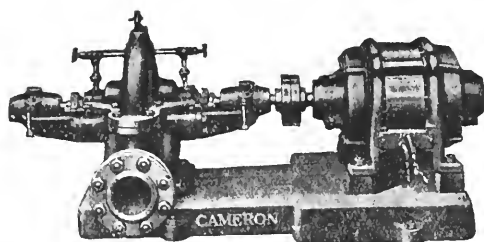
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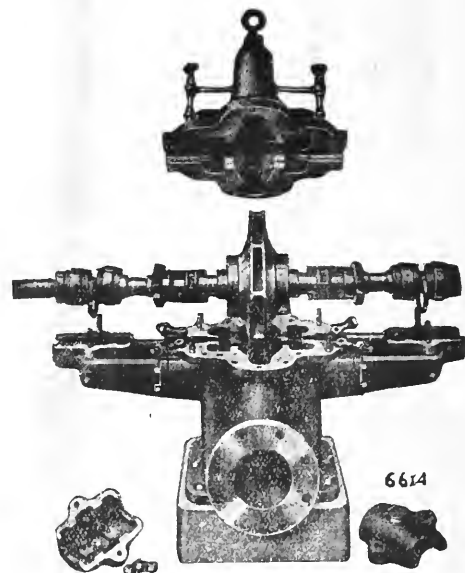
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